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ABSTRACT

The major purposes of this guide are to: (1) identify available national data on maternal and child health, with emphasis on costs of care and insurance coverage for chronically ill children; (2) explain to the reader how to use such data; and (3) offer recommendations for improving future collection and analysis of national data. The guide is organized into four sections. The introductory section includes the project overview and material on the organization and use of the guide. Part 1 includes findings and recommendations for improving national data for financing care for chronically ill children. Part 2 includes the inventory of 17 national surveys, with a survey index, matrices of 9 topic areas, survey summaries, and complete survey descriptions. Each survey is summarized in terms of the information collected on demographics, risk factors, health status, severity of illness, health services utilization, delivery system characteristics, health care expenditures, source of payment, and other special features. The appendix includes a medical subject headings index, a technical assistance section, selected references, and a reference guide to related health data inventories. The Medical Subject Headings Key Words and the matrices are intended to quickly guide readers to the national survey most relevant to their interest. (RH)

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GUIDE TO NATIONAL DATA ON MATERNAL AND CHILD HEALTH

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With Special Emphasis On Financing Services For Chronically Ill Children

PS 018194

Prepared by:
THE FINANCING DATA TASK FORCE ON CHRONICALLY ILL CHILDREN
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GUIDE TO NATIONAL DATA ON MATERNAL AND CHILD HEALTH

With Special Emphasis on Financing Services for Chronically Ill Children

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The Financing Data Task Force made major contributions in conceptualizing the Inventory, making it "user friendly," and, most importantly, understanding what the most essential data needs are to improve the financing and delivery of services to chronically ill children. It has been a pleasure to work with such a prestigious group of individuals with combined skills in insurance, policy development, pediatric practice, research, administration, legislation, and parenting! A special thanks to Paul Newacheck, whose experience as a user of several national data bases for chronically ill children, greatly facilitated the development of the Guide.

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FOREWORD

The Guide to National Data on Maternal and Child Health with Special Emphasis on Financing for Chronically Ill Children has been developed with an expert task force of policymakers, providers of pediatric services and researchers for the purpose of identifying relevant national data sources to promote more analysis of existing national data and to expand current data collection efforts for chronically ill children.

The importance of reliable and current financing data for this population has never been more apparent. Recent shifts in health insurance and delivery systems rival those made in the mid-sixties with the passage of Medicare and Medicaid.

Increased accessibility to and analysis of reliable financing data are needed so that federal and state administrators of Maternal and Child Health and Crippled Children's Services Programs, pediatric providers, policymakers, insurers, and researchers can better plan and evaluate their programs and services for these special children.

Along with this national Guide, two additional guides will be prepared. The State Inventory will include summaries of selected data sources from the Health Care Financing Administration, the Association of State and Territorial Health Officials, and a limited number of state financing data bases. The Special Survey Inventory will include descriptions of other special surveys, such as the Blue Cross and Blue Shield PROBE data system and data bases for selected conditions, e.g., the MARGIN system for genetic data.

The Division of Maternal and Child Health, in support of this effort, expects to encourage greater access to and analysis of the most relevant national data for chronically ill children. We hope that this inventory will serve as a useful guide to the various national data sources that can be utilized in your important work with financing of care for maternal and child health and chronically ill children.

Sincerely,

Merle McPherson, M.D.
Acting Director
Division of Maternal and Child Health

Aaron Favors, Ph.D.
Acting Chief
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INTRODUCTION

This Guide will help direct policymakers, planners, researchers, providers and educators tc the most appropriate national surveys for answering questions about maternal and child health and about financing for chronically ill children. Subsequent volumes on state and other special survey data will elaborate further the range of information that is available on financing of care for chronically ill children. (For purposes of this Guide, the definition of chronically ill children used is broad and inclusive.)

No single data base has sufficient information on health care expenditures and source of payment for chronically ill children, primarily because of the small numbers of chronically ill children sampled. As a result of the limits of national financing data for this population, the Guide was expanded to include 17 surveys.

The Guide summarizes each survey in terms of the information collected on demographics, risk factors, health status, severity of illness, health services utilization, delivery system characteristics, health care expenditures, source of payment, and other special features. In addition, readers will find extensive survey descriptions along with matrices which quickly identify the available or unavailable information in each survey.

A special section has been added on national and survey-specific recommendations. These recommendations were developed by the Financing Data Task Force advising this project.

This Guide does not include actual analyses and tables from national surveys. It does, however, include selected references and table titles related to maternal and child health up to February 1986. The appendix has four sections: a Medical Subject Headings Index, a technical assistance summary on using national data to make state estimates, selected references on financing of care for chronically ill children, and a reference guide to related national health data inventories.

PART 1: BACKGROUND

PROJECT OVERVIEW

The Division of Maternal and Child Health, Habilitative Services Branch, awarded a SPRANS grant to the University of California, San Francisco (with a subcontract to McManus Health Policy, Inc.) to examine financing data for chronically ill children.

There are three phases to this grant:

1) the development of three financing inventories on national, state and other special survey data with guidance from a Financing Data Task Force (McManus Health Policy),

2) analysis of the 1980 National Medical Care Utilization and Expenditure Survey on health services utilization, costs and reimbursement for chronically ill children (Newacheck, University of California, San Francisco), and

3) two reports on cost-effectiveness analyses for assessing alternative forms of treatment and therapies for chronically ill children (UCSF and McManus Health Policy).

The National Maternal and Child Health Guide is part of phase 1 of this SPRANS grant. Two subsequent inventories will be prepared on state financing data and other special survey data.

NEED AND RATIONALE FOR THE NATIONAL GUIDE

This national inventory was developed to respond to the need to improve access to the most appropriate national data sources on maternal and child health related to: demographics, risk factors, health status, severity of illness, health services utilization, delivery system characteristics, expenditures, source of payment/health insurance coverage, and other special features.

A special emphasis on chronically ill children is included because of growing concerns about the impact of recent financing shifts as well as ongoing limits in health insurance coverage for this special population of children. According to Vanderbilt's 1986 publication, Chronically Ill Children and Their Families, various constituencies have united over the importance of improving public and private reimbursement for chronically ill children; yet, most agree, it is difficult to proceed without more

knowledge about existing national and state data.

Until now, no one has attempted to bring together, summarize and assess a multitude of national surveys in terms of their data related to maternal and child health and financing for chronically ill children. Improved reimbursement and delivery systems for chronically ill children demand new and comprehensive assessments of existing data at national, state and local levels.

OBJECTIVES

The major purposes of the Guide are to:

1) identify national data available on maternal and child, with emphasis on costs of care and insurance coverage for chronically ill children,

2) direct the reader on how to use these data, recognizing the strengths and weaknesses of each survey,

3) develop overall and survey-specific recommendations to improve future collection and analysis of national data.

POTENTIAL USES

There are several potential uses for the Guide:

- to locate quickly the most appropriate national data for maternal and child health policy and research issues,
- to increase access to and analysis of existing national data for chronically ill children, particularly those surveys seldom used by the health field,
- to identify the strengths and weaknesses of national data and to provide a mechanism to share strengths and weaknesses of selected data bases among the users of the information,
- to determine if new financing data are needed or if better use of existing information is required,
- to inform readers about future survey plans,

- to improve the comparability of national and state data related to chronically ill children,

- to identify national data that states are unable to collect themselves -- e.g., risk factor and health examination survey data; and to identify national data that states may be able to supplement -- e.g., claims data,

- to increase access to survey experts who are knowledgeable about the design, content, analysis and future directions of each national survey.

With information from 17 national surveys, it is possible to examine:

<u>policy needs</u>:	the amount and type of needed data on financing services for children with varying burdens of illness.
<u>research needs</u>:	possible preventive strategies, epidemiology distribution and etiology of illness, and interrelationships of health services and other spheres of activity.
<u>monitoring needs</u>:	identification of risk factors in childhood illness and the need for modifying them.

ORGANIZATION AND USE OF THE GUIDE

Organization

The Guide is organized into four sections:

1) The introductory section includes the project overview and the organization and use of the guide.

2) Part 1 includes findings and recommendations for improving national data for financing for chronically ill children.

3) Part 2 includes the inventory of 17 national surveys, with a survey index, matrices of 9 topic areas (e.g., health care expenditures and health insurance coverage; see "how to use matrices"), survey summaries and complete survey descriptions. Note: each matrix is a visual means of comparing topic areas included/excluded in each survey.

4) The appendix includes the MeSH Key Words Index, a section on making state estimates from national surveys, a financing bibliography, and a reference guide to other health data inventories.

How to Use the Guide

The following series of steps, along with examples, will guide the reader in identifying the most appropriate national survey(s) to answer a specific question or series of questions. If you have no specific question in mind but just want information on, for example, health care expenditures, refer to Matrix 7 on Health Care Expenditures and examine the range of information that might be available and then begin with Step 4 and continue.

STEPS

1. IDENTIFY DATA NEED

2. FORMULATE RESEARCH QUESTION

3. IDENTIFY RELEVANT TOPIC AREAS

4. IDENTIFY SURVEYS WITH TOPICAL INFORMATION USING MATRICES

5. REVIEW SURVEY SUMMARIES AND REFINE SELECTION

6. REVIEW DETAILED SURVEY DESCRIPTIONS AND REFINE SELECTION FURTHER

7. SELECT MOST APPROPRIATE NATIONAL SURVEY

8. USING DETAILED SURVEY DESCRIPTIONS, DETERMINE AVAILABILITY OF PUBLISHED AND UNPUBLISHED DATA

EXAMPLE

1. Identify data needed.

   Example: Hospitalization patterns among very low birthweight infants.

2. Formulate research question(s).

   Example: What is the average length of stay for children with extreme immaturity?

3. Identify relevant topic areas (see page 30 for a listing of topic areas) included in your question.

   Example: Average length of stay relates to the topic area "health services utilization" and extreme immaturity relates to the topic area "health status".

4. Identify surveys with topical information using matrices (see page 36 for matrices by each of the 9 topic areas).

   Example: Turn to page 41 for Matrix 5: Health Services Utilization and turn to page 39 for Matrix 3: Health Status.

   A. Select the specific measures, listed in the left-hand column, that are most appropriate to your question(s).

      Example: Average length of stay relates to hospital inpatient in Matrix 5 and extreme immaturity relates to diagnoses or birth conditions in Matrix 3.

   B. Identify the full range of surveys in each of the matrices that may have the appropriate information. Those surveys are designated by X.

      Example: In Matrix 5: hospital inpatient data are available in all but 4 surveys (Census, CES, HS&B, and NAMCS). In Matrix 3, 8 surveys have information on diagnoses -- BDMP, NAMCS, NHIS, NHDS, NLS, NMCES, and NMCUES. Also in Matrix 3, 5 surveys collect data on birth conditions -- BDMP, CHS, NHANES, NLS, NNS/NFMS.

C. To narrow down the options, select only those surveys that have information on all of the specific measures that you are interested in and drop the remaining surveys that provide you with only partial information.

Example: The following surveys may be appropriate at first glance because they have information both on inpatient hospitalization and diagnoses or birth conditions: BDMP, CHS, NHANES, NHIS, NHDS, NLS, NMCES, NMCUES, NNS/NFMS, Sample.

5. Review survey summaries and refine selection. The survey summaries will tell you, for example, what is the most current year that data are available, if state data are available, and more specificity on the content areas covered in each survey.

Example: Several surveys could be dropped for several reasons: for example, they are not current, they cover just mental hospitals, the samples are not representative. The CHS, NHANES, NHIS, NLS, NMCES, NMCUES, NNS/NFMS, and Sample can be removed from consideration.

6. Review detailed survey descriptions and refine selection further, examining "Content Summary" and "Topic Areas" in detail. Also refer to the section on strengths and weaknesses of the survey for chronically ill children and the section on availability of published data for quick access to existing information.

Example: The most appropriate surveys are the NHDS and the BDMP. Depending upon the strengths and weaknesses noted in the complete survey descriptions and the availability of published data, the reader can determine which is most appropriate.

7. Select the most appropriate national survey.

Example: The NHDS may have certain advantages because of the sample size and greater access to published data. However, BDMP may have more discharges for infants with extreme immaturity.

8. Using the detailed survey descriptions, determine availability of published and unpublished data. If published and unpublished data are unavailable but the data exist on the data tape, pursue the purchase and analysis of the public use tapes, keeping in mind the complexity of many of these large national surveys.

Example: The NHDS has current published data on hospitalization rates for infants under 1 excluding newborns, 1-4, 5-9, and 10-14. However, their hospitalization rates are primarily organized by major diagnostic category, not specific diagnoses. Therefore, average length of stay could be reliably obtained only for the diagnostic category "Certain Conditions Originating in the Perinatal Period." The BDMP, while not a representative sample, codes their data base (from the Commission on Professional Activities-CPHA) into major classifications of congenital malformations. Therefore, there is greater likelihood that ALOS for extreme immaturity could be obtained. However, the BDMP can only provide you with its analysis of the CPHA data that is has purchased.

The NHDS publishes extensive and annual reports. Machine readable files are also for sale at a cost of $125 from the National Technical Information Service. Very little published data are prepared from the BDMP and no public use data tapes are available for BDMP except, at significant expense, from the CPHA. Direct contact with the survey staff would be appropriate for BDMP to determine specific access to unpublished tables.

PART 2: FINDINGS AND RECOMMENDATIONS

STRENGTHS AND WEAKNESSES OF NATIONAL DATA FOR CHRONICALLY ILL CHILDREN

A wealth of national health survey data exists that can expand the knowledge base for maternal and child health programs. This section will review the strengths and weaknesses of selected national surveys for chronically ill children, with special attention to health care financing. Recommendations for national surveys follow this section.

Briefly, no single data base has sufficient information on expenditures and source of payment for chronically ill children, primarily because of the small numbers of chronically ill children sampled. The National Medical Care Utilization and Expenditure Survey (NMCUES), for example, asks the most comprehensive set of questions on health services utilization, expenditures and insurance coverage, but only surveys 250 children with chronic conditions limiting their activity. Other surveys with larger numbers of chronically ill children, on the other hand, tend to have very few questions on costs and insurance. The National Health Interview Survey with its relatively large sample of chronically ill children asks no questions on expenditures and only occasional on source of payment.

The following section summarizes specific strengths and weakness of national data for chronically ill children.

Strengths

1. Extensive national data are available on health status and utilization for noninstitutionalized chronically ill children with prevalent (and often low severity) conditions, specifically:

   -- information on major diagnostic groupings (e.g., respiratory conditions);
   -- information on limitation of activity for major diagnostic groupings;
   -- information on hospitalization and physician visits;

2. Information on pregnancy and birth-related conditions is readily available and the capacity to provide this information is expanding. In addition, a growing arsenal of pregnancy-related risk factor information is available.

3. A few national agencies have devoted considerable attention to collecting reliable expenditure and source of payment information, although such information may be dated by the time data tapes are available and analyses conducted.

4. National data sources cannot be surpassed in terms of the public's access to the information, the expertise and availability of staff to respond to requests for information, the consistent and useable presentation of survey findings, and the low-cost availability of publications, tabulations, and public use tapes.

Weaknesses

1. There is no readily available national data source with information on the total numbers of children with chronic conditions, partly because no national surveys include children in institutional settings.

2. For children with rare/low prevalence (and often high severity) chronic conditions, very little can be said from existing national data bases. On the other hand, for children with chronic conditions that have relatively high prevalence rates (e.g., asthma) and with mild or no limitation of activity, a great deal can be said.

3. Health expenditure data are out-of-date, with some exceptions (Consmer Expenditure Survey, Survey of Income and Program Participation). Several national surveys collect information on expected source of payment --public, private, self-pay, other-- because data on the actual source of payment is difficult to obtain. Questions on outstanding medical bills have not been adequately addressed.

4. Little information is available on multiple sources of payment, the portion of self-pay persons who become Medicaid eligible, the services foregone because of inadequate health insurance, deductibles, cost-sharing requirements on different services, catastrophic limits, and coverage of chronically ill adolescents and young adults.

5. The ability to examine longitudinal shifts in the use of health care services, expenditures, and source of payment is limited. While the National Longitudinal Survey (NLS) provides a unique source of information on adolescents and young adults, it is basically an employment survey with limited information on young children's health and functional status, use of services, expenditures, and insurance.

6. With the exception of the National Health Interview Survey, and to a lesser extent with the National Medical Care Expenditure Survey and the National Medical Care Utilization and Expenditure Survey, very little analysis of national data bases has been performed by survey staff or outside researchers on chronically ill children.

7. Long delays in the publication of the survey findings are common, limiting the timeliness and usability of the information, particularly as it relates to utilization patterns, expenditures, and source of payment. Exceptions to this are the National Hospital Discharge Survey, the Survey of Income and Program Participation, and most recently, the National Health Interview Survey.

8. All of the national data bases are relatively complex and require staff proficient in the use of large data bases.

9. State-level data are unavailable in many of the data bases. However, it is possible using synthetic estimation techniques, to obtain state estimates from several national data bases.

10. No national surveys collect risk factors that are specific to selected chronic conditions, e.g., environmental exposure for children with respiratory condition.

11. Many national surveys vary in how illnesses are categorized. Some use major diagnostic groupings, such as respiratory conditions; others use ICD-9-CM, and still others recode the ICD-9-CM.

12. Few national data bases collect health status information on children with mental disorders and developmental and learning disabilities, by age.

13. The severity of illness measures used in national surveys (e.g., limitation of activity, restricted activity days) are very gross, and are particularly problematic for children ages 0-3 years of age.

14. Very little information is available on the use of ambulatory care services, particularly those provided by non-physician health providers.

15. Especially inadequate is data on institutionalized children. No information is available from these 17 surveys on the use of noninstitutional health care services (e.g., physician services, hospitalization) by children living in institutional settings.

16. Information on delivery system characteristics is not reflective of current delivery arrangements. In addition, some of the questions (e.g., ownership status) no longer bear the same meaning in terms of profit/nonprofit status. Areas such as community-based care, regionalization, and case management have not been adequately captured in existing national surveys.

NATIONAL RECOMMENDATIONS

FOR IMPROVING FINANCING DATA FOR CHRONICALLY ILL CHILDREN

Introduction

The Financing Data Task Force, following an extensive review of 17 national surveys and their strengths and weaknesses for chronically ill children, prepared the general and survey-specific recommendations listed below. At the outset of this SPRANS project, it was evident that national data on financing for chronically ill children were very limited. As a result, the Task Force considered it had a major role not only in developing this Guide to summarize existing data sources but also in determining areas where new data and analysis are needed.

General Recommendations

1. Encourage more analysis of existing national survey data for chronically ill children with the child as the unit of analysis. An understanding of how different illnesses and types of illnesses cluster in some subgroups of children and the sociodemographic correlates of this clustering would facilitate the identification of children at high risk of needing services. It would also facilitate identification of the characteristics of children who appear to be at low risk. The latter should provide information useful in devising strategies to prevent development of high risk status in children.

2. Oversample chronically ill children in national surveys to obtain more reliable estimates of their health and functional status, utilization, expenditures, and insurance patterns.

3. Encourage the design and implementation of a longitudinal national approach to collect expenditure and insurance information on children. Such an approach could be a new survey or an adaptation of one or more existing surveys.

4. Encourage the use of a range of national surveys, many of which have seldom been used by analysts in the health field -- the National Longitudinal Survey, the Consumer Expenditures Survey, the Survey of Income and Program Participation -- to obtain more information on chronically ill children.

5. Expand the capacity of national surveys to perform longitudinal studies of chronically ill children to examine changes in health status, risk factors, utilization, expenditures, and insurance coverage.

6. Perform child-oriented analyses of morbidity (rather than disease-oriented analyses) that also describe health services received. Such information would greatly facilitate descriptions of where children with various burdens of illness receive care, the types of care received, and the relative costs and outcomes associated with the different types of services.

7. Collect and analyze additional source of payment/health insurance information in the following areas:

   - coverage of ambulatory services (for preventive, acute, rehabilitative care);
   - difficulties experienced by families with chronically ill children in obtaining and maintaining health insurance coverage;
   - newborns' insurance status, including better estimates of the proportion of those expected to pay out-of-pocket, but actually obtain Medicaid or other public or private insurance coverage;
   - insurance policies on catastrophic limits, if and when a family reaches them, and the consequences;
   - part-year and full-year health insurance coverage;
   - amount of deductibles and co-payments for specific services and impact on use of services;
   - insurance status of adolescents and young adults, ages 18-25, because of major changes in their eligibility status;
   - insurance status of institutionalized children, particularly changes in coverage over time -- from private to public sources;
   - role of state Crippled Children's Service Agencies and private foundations (e.g., Muscular Dystrophy Association) in serving as payor of last resort; and
   - multiple payers and coordination of benefits.

8. Collect new information on health care expenditures, insurance, and utilization patterns among institutionalized children.

9. Collect new information on health services foregone because of financing problems as well as the economic impact on families with chronically ill children.

10. Improve/update the information collected on delivery system characteristics to be more reflective of the changing financing and delivery systems for both public- and private-pay families.

11. Design new developmentally-specific measures of functional status for chronically ill children, with special attention to young children ages 0-3.

12. Regarding health services utilization, collect more information on:

    - use of multiple providers;
    - use of case managers by chronically ill children;
    - use of noninstitutionalized health care services by institutionalized children;
    - use of non-physician services;
    - use of health-related services (medical services and supplies, assistive devices) and impact of lack of needed health-related services; and
    - impact of health services on health and functional status.

13. Improve access to data by releasing data in more usable forms -- e.g., diskettes for IBM, Apple, etc. Also provide more detailed tables on disk form.

Survey-Specific Recommendations

1. **Census of Persons in Institutions and Other Group Quarters** (Census)

   A. Include the Postcensus Disability Survey as part of the upcoming Census. This Survey was designed to collect data on functional limitations and health-related services received. (Note: Due to budget cuts, this survey was withdrawn.)

   B. Expand the long form of the Census questionnaire to include items on low prevalence conditions.

   C. Add a functional status question relevant to children (e.g., limitation of activity) and the need for and use of assistive devices.

   D. Collect main cause of limitation of activity or functional limitation.

2. **Child Health Supplement** (CHS)

   A. Repeat the CHS every five years. Include health status scales from the 1981 data and other available data sources.*

   B. Use the CHS to develop functional status measures.*

   C. Assess the use of personal assistance and assistive devices, unmet need for personal asssistance and assistive devices and impact of their lack of use.

   D. Include questions related to health insurance coverage.

3. **National Ambulatory Medical Care Survey** (NAMCS)

   A. Expand NAMCS to cover all physicians delivering ambulatory care, not just office-based physicians.

4. **National Health and Nutrition Examination Surveys** (NHANES)

   A. Expand NHANES interview instrument to include questions on chronic conditions and functional status (e.g., limitation of activity) used in NHIS to permit comparison of interview results with clinical findings (e.g., validation studies).

B. Provide physician examinations to those children who report limitation of activity, for validation purposes.

C. Examine the feasibility of asking about risk factors specific to selected chronic conditions (e.g., nutritional habits, physical therapy/exercise).

D. Expand the NHANES follow-on studies to include children as well as adults.*

5. **National Health Interview Survey** (NHIS)

A. Over-sample chronically ill children and young children in the NHIS. Consider conducting a special supplement to the NHIS on persons with chronic conditions, with special emphasis on children.*

B. Add other measures of functional status besides limitation of activity.

C. Use the same general chronic condition checklist for all children, as in CHS, to avoid current subsample problems.

6. **National Hospital Discharge Survey** (NHDS)

A. Link the hospital discharge data with county codes, hospital information, and Area Resource File data for more information on hospital utilization patterns.*

B. Encourage more analysis of the NHDS newborn data.

C. Examine the use of the patient as the unit of analysis for the purpose of determining multiple admissions by single individuals.

7. **National Longitudinal Survey of Labor Market Experience of Youth** (NLS)

A. For the 1986 survey, encourage the collection of new information on the physical, socio-affective, and cognitive development of the 5,800 children of the NLS respondents. Support new analysis, using these data, to assess 1) differentials in child development among Black, Hispanic and White children, 2) differences in child outcomes associated with critical intervening factors (e.g., smoking, maternal health care during pregnancy), 3) correlations among various child outcomes and their impact on childhood educational behavior, and 4) effects of early childbearing on later child outcomes.

B. Compare, using different data sets with similar information, the NLS health insurance findings and the measurement of family structure, parental employment, and child care.

8. **National Medical Care Utilization and Expenditure Survey** (NMCUES)

A. Encourage the dissemination of published data as is done with the National Health Interview Survey (e.g., Current Estimates) versus publishing reports on selected subjects (e.g., dental visits). This would allow users to perform their own secondary analysis on a range of major areas covered in NMCUES.

B. Improve the documentation of NMCUES data problems and definitions of data items.

C. Oversample chronically ill children in future national health expenditure surveys.

D. Examine the amount owed by families over a period of more than one year.

E. Ensure, where appropriate, that health questions are standardized to specifications used by the NHIS and coded in the same fashion to ensure comparability. Include a checklist of chronic conditions as in NHIS.

F. Include questions on other health-related expenses, besides orthopedic appliances, eyeglasses, diabetic accessories (e.g., general medical supplies, etc. as well as non-medical costs related to chronic illness).

G. Increase the frequency of data collection of these national expenditures surveys (at least every 3 years) to improve the timeliness of the data.

H. Reduce the turn-around time for release of data.

I. Expand the dissemination of synthetic estimation techniques for use by states.

J. Increase the sample size and oversample chronically ill children.

9. **National Natality Survey and National Fetal Mortality Survey** (NNS/NFMS)

A. Follow-up the infants studied in the follow-back NNS for a longer period of time, e.g., until school entry.*

B. For the 1988 NNS survey, expand the questions on health insurance to include the source of payment, i.e., private, public, and amount of out-of-pocket expenses. (Questions on what portion of the person's health insurance coverage paid for prenatal visits, doctor's bill and hospital bill were asked in the 1964-66 and 1972 NNS Surveys.)

10. **Survey of Income and Program Participation** (SIPP)

A. Recognizing SIPP as a health and social science resource whose scope is broader than its current economic focus, expand the survey to gather basic demographic information on children, their families, and households.*

B. Use periodic cluster samples and supplements to focus on specific child subpopulations that are sociodemographically different; medically, developmentally, physically or behaviorally different or at risk; children receiving special services; and groups of potential but confirmed special population status (e.g., children in foster care).*

C. Ensure that the Wave Three questionnaire continues to include disability-related items.

D. Because of the difficulties cited in SIPP's complete survey description, combined with the potentially great value of the data, provide for more processing of the computer data tapes than the usual Public Use Microdata Samples produced for other major data bases. Consider creating and disseminating a series of "Sub" Public Use Microdata Samples designed for easy use and tailored to the special needs of relatively large and well-defined user groups.*

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* Zill, Nicholas; Peterson, James and Moore, Kristin: Improving National Statistics on Children, Youth and Families. Washington, D.C.; Child Trends, Inc., 1984.

PART 3: INVENTORY OF 17 NATIONAL SURVEYS

SURVEY INDEX

		Pages	
		Summary	Complete
1.	ANNUAL CENSUS OF ADDITIONS AND RESIDENT PATIENTS IN STATE AND COUNTY MENTAL HOSPITALS (Annual)	47	79
2.	AREA RESOURCE FILE SYSTEM (ARF)	48	84
3.	BIRTH DEFECTS MONITORING PROGRAM (BDMP)	50	94
4.	CENSUS OF PERSONS IN INSTITUTIONS AND OTHER GROUP QUARTERS (Census)	51	98
5.	CHILD HEALTH SUPPLEMENT (CHS)	52	105
6.	CONSUMER EXPENDITURE SURVEY (CES)	54	112
7.	HIGH SCHOOL AND BEYOND (HS&B)	55	118
8.	NATIONAL AMBULATORY MEDICAL CARE SURVEY (NAMCS)	56	124
9.	NATIONAL HEALTH AND NUTRITION EXAMINATION SURVEYS (NHANES)	58	131
10.	NATIONAL HEALTH INTERVIEW SURVEY (NHIS)	60	142
11.	NATIONAL HOSPITAL DISCHARGE SURVEY (NHDS)	62	155
12.	NATIONAL LONGITUDINAL SURVEY OF LABOR MARKET EXPERIENCE OF YOUTH (NLS)	63	162
13.	NATIONAL MEDICAL CARE EXPENDITURE SURVEY (NMCES)	66	173
14.	NATIONAL MEDICAL CARE UTILIZATION AND EXPENDITURE SURVEY (NMCUES)	70	184
15.	NATIONAL NATALITY SURVEY AND NATIONAL FETAL MORTALITY SURVEY (NNS/NFMS)	73	196
16.	SAMPLE SURVEY OF STATE AND COUNTY MENTAL HOSPITAL INPATIENT ADMISSIONS (Sample)	75	210
17.	SURVEY OF INCOME AND PROGRAM PARTICIPATION (SIPP)	77	216

SURVEY ACRONYMS

1.	ANNUAL	ANNUAL CENSUS OF ADDITIONS AND RESIDENT PATIENTS IN STATE AND COUNTY MENTAL HOSPITALS
2.	ARF	AREA RESOURCE FILE SYSTEM
3.	BDMP	BIRTH DEFECTS MONITORING PROGRAM
4.	CENSUS	CENSUS OF PERSONS IN INSTITUTIONS AND OTHER GROUP QUARTERS
5.	CHS	CHILD HEALTH SUPPLEMENT
6.	CES	CONSUMER EXPENDITURE SURVEY
7.	HS&B	HIGH SCHOOL AND BEYOND
8.	NAMCS	NATIONAL AMBULATORY MEDICAL CARE SURVEY
9.	NHANES	NATIONAL HEALTH AND NUTRITION EXAMINATION SURVEYS
10.	NHIS	NATIONAL HEALTH INTERVIEW SURVEY
11.	NHDS	NATIONAL HOSPITAL DISCHARGE SURVEY
12.	NLS	NATIONAL LONGITUDINAL SURVEY OF LABOR MARKET EXPERIENCE OF YOUTH
13.	NMCES	NATIONAL MEDICAL CARE EXPENDITURE SURVEY
14.	NMCUES	NATIONAL MEDICAL CARE UTILIZATION AND EXPENDITURE SURVEY
15.	NNS/NFMS	NATIONAL NATALITY SURVEY AND NATIONAL FETAL MORTALITY SURVEY
16.	SAMPLE	SAMPLE SURVEY OF STATE AND COUNTY MENTAL HOSPITAL INPATIENT ADMISSIONS
17.	SIPP	SURVEY OF INCOME AND PROGRAM PARTICIPATION

SURVEY DATA AVAILABILITY

Survey Acronym	Most Current Data*	Regional	State	SMSA
1. Annual	1980	Yes	Yes	No
2. ARF	1985	Yes	Yes	Yes
3. BDMP	1985	Yes	Yes	No
4. Census	1980	Yes	Yes	Yes
5. CHS	1981	Yes	No	Yes
6. CES	1985	Yes	No	Yes
7. HS&B	1984	Yes	No	No
8. NAMCS	1981	Yes	No	Yes
9. NHANES	1984	Yes	No	Yes
10. NHIS	1983	Yes	No	Yes
11. NHDS	1984	Yes	No	No
12. NLS	1984	Yes	No	Yes
13. NMCES	1977	Yes	No	Yes
14. NMCUES	1980	Yes	No	Yes
15. NNS/NFMS	1980	Yes	Yes	Yes
16. Sample	1980	Yes	No	No
17. SIPP	1985	Yes	No	No

* As of 2/86.

FORMAT AND DEFINITIONS USED IN COMPLETE SURVEY DESCRIPTIONS

The format and definitions were developed to standardize the information abstracted from the 17 national surveys. Each of the complete survey descriptions is organized in this way.

SURVEY TITLE	Survey title.
SPONSOR	Sponsoring federal agency and department.
PURPOSE	Brief description of purpose and scope of survey.
SURVEY DESIGN	Survey plan and sample design. Also recent changes in sampling and/or data collection.
KEY WORDS	Medical Subject Headings (MeSH) used by the National Library of Medicine to assist in indexing and retrieval.
CONTENT SUMMARY	Summary of topic areas covered in each survey on: 1) demographics, 2) risk factors, 3) health status, 4) severity of illness, 5) health services utilization, 6) delivery system characteristics, 7) health care expenditures, 8) source of payment/health insurance coverage, and 9) other special features. See Topic Areas below for more detail on the Content Summary. The Content Summary is separate and distinct from the MeSH Key Words and is more descriptive of each survey.
CHILD POPULATION SURVEYED	Number of children sampled and child subgroups available in data tapes and published materials.
FREQUENCY	Timing of survey.
AVAILABILITY	Location and access of public use data tapes and most recent published survey information. See Selected Publications for more detail.
CONTACT	Agency staff person responsible for survey, including address and phone.
TOPIC AREAS	Summary of relevant data collected in each survey, as shown below. See Matrices for a graphic display of each survey by the following topic areas and specific measures.

1.	**Demographics**	Included as demographic measures are age, sex, race and ethnicity, marital status, family size and composition, geographic area, income, poverty status, education, employment status, occupation, public assistance status, child care arrangements, and others.
2.	**Risk Factors**	Included as risk factor measures are nutrition, smoking, substance abuse, radiation/toxic exposure, exercise, delinquency/crime, LBW risk factors, risk behavior during pregnancy, and others.
3.	**Health Status**	Included are major diagnostic groupings, diagnoses, acute conditions, chronic conditions, signs and symptoms, motor and social development, behavior problems, dental problems, pregnancy and delivery history, birth conditions, perceived health status, patient disposition, and others.
4.	**Severity of Illness**	Included are limitations of activity and other measures of restricted activity such as bed-loss days, school-loss days, work-loss days, and others.
5.	**Health Services Utilization**	Included are use of institutional services, hospital care (inpatient), hospital outpatient/clinics, emergency rooms, surgery/procedures, diagnostic tests, physician visits, other health provider visits, dental visits, family planning, prenatal care, medications, other health-related services, and others.
6.	**Delivery System Characteristics**	Included are health service location, facility type, hospital supply, bed size, ownership, physician/health provider supply, physician/health provider specialty, practice arrangements, usual source of care, distance to provider, time interval since last visit, waiting times, and other delivery system characteristics.
7.	**Health Care Expenditures**	Included are individual and total charges, payments, and reimbursements, out-of-pocket payments, premiums, employer/union contributions, co-payments and deductibles, outstanding medical bills, and other expenditures. Note:

these expenditures can be made by the family, employer, insurer, and/or government source.

8. **Source of Payment/ Health Insurance Coverage** — Included are all usual expected or actual third party payers: private insurance (individual and group insurance, Blue Cross and Blue Shield, self-insurance, and prepaid health plans), public insurance (Medicaid and Medicare, and other government payments), self-pay, and no charge. Also included are information on type of plan (e.g., family members covered), insurance benefits, time period of coverage, reasons for lack of insurance coverage, and other insurance information.

9. **Other Special Features** — Included are impact of health problems, barriers to care, satisfaction with care, and other special features.

STRENGTHS FOR CHRONICALLY ILL CHILDREN — A sampling of some of the contributions of the survey related to demographics, risk factors, health status, severity of illness, health services utilization, delivery system characteristics, source of payment/health insurance coverage for chronically ill children.

WEAKNESSES FOR CHRONICALLY ILL CHILDREN — A sampling of some of the limits and gaps of the survey related to each of the topic areas for chronically ill children.

EXAMPLES OF PUBLISHED DATA — A sampling of relevant table titles available in the published reports, presentations and publications to facilitate use of existing child-specific information, that is cross-referenced to Selected Publications below. For the most current listing of published data and unpublished tabulations, readers should be directed to the agency contact.

SELECTED PUBLICATIONS — A sampling of relevant publications, research reports and presentations, cross-referenced to examples of published data listed above.

MATRIX SECTION

HOW TO USE THE MATRICES

The following matrices summarize what each national survey collects in nine topic areas: demographics, risk factors, health status, severity of illness, health services utilization, delivery system characteristics, health care expenditures, source of payment/health care expenditures, and other special features.

A matrix for each of these topic areas lists the specific measures contained in each survey. For example, under the topic area, "Demographic Measures," the reader can determine which survey asks about income, public assistance status, and child care arrangements. Under "Risk Factor Measures," one can identify what surveys collect information on nutrition, substance abuse and risk behavior during pregnancy. See next page for a complete listing of each of the nine topic areas and the specific measures you can select to guide you to the most appropriate survey(s).

These matrices were designed to facilitate easy access to some of the most likely questions readers would have. It is possible to use the matrices in two ways: 1) to select a specific national survey and see the range of information it collects; or 2) to choose a specific measures (e.g., third party payers or hospitalization) and select the survey(s) that contains the information you need. After identifying the national survey(s) that appears most appropriate, refer next to the survey summary and complete survey description for more detail.

The last part of this section summarizes the maternal and child health data available in each matrix.

MATRICES BY TOPIC AREAS

1. Demographic Measures

- Age
- Sex
- Race & Ethnicity
- Marital Status
- Family Size & Composition
- Geographic Area
- Income
- Education
- Employment Status
- Occupation
- Public Assistance Status
- Child Care Arrangements
- Other

2. Risk Factor Measures

- Nutrition
- Smoking
- Substance Abuse
- Radiation/ Toxic Exposures
- Exercise
- Delinquency/ Crime
- LBW Risk Factors
- Risk Behavior During Pregnancy
- Other

3. Health Status Measures

- Major Diagnostic Groupings
- Diagnoses
- Acute Conditions
- Chronic Conditions
- Signs & Symptoms
- Motor & Social
- Development
- Behavior Problems
- Dental Problems
- Pregnancy & Delivery History
- Birth Conditions
- Perceived Health Status
- Patient Disposition
- Other

4. Severity of Illness Measures

- Limitation of Activity
- Restricted Activity Days
- Bed Disability
- School-loss Days
- Work-loss Days
- Other

5. Health Services Utilization Measures

- Insitutionalization
- Hospital (inpt)
- Hospital Outpatient/Clinics
- Emergency Rooms
- Surgery/ Procedures
- Diagnostic Tests
- Physician Visits
- Other Health Provider Visits
- Dental Visits
- Family Planning
- Prenatal Care
- Medications
- Other Health-Related Svcs.
- Other

6. Delivery System Characteristics Measures

- Health Svc. Location
- Facility Type
- Hospital Supply
- Bed Size
- Ownership
- Physician/ Health Provider Supply
- Physician/Health Provider Specialty
- Practice Arrangement
- Usual Source of Care
- Distance to Provider
- Time Interval Since Last Visit
- Waiting Times
- Other

7. Health Care Expenditure Measures

- Indiv/Total Charges
- Indiv/Total Payments
- Indiv/Total Reimbursements
- Out-of-Pocket Payments
- Premiums
- Employer/ Union Contrib.
- Co-payments & Deductibles
- Outstanding Medical Bills
- Other

8. Source of Payment/Health Insurance Coverage Measures

- Third Party Payer(s)
- Type of Plan
- Insurance Benefits
- Time Period of Coverage
- Reason for Lack of Coverage
- Other

9. Other Special Feature Measures

- Impact of Health Problems
- Barriers to Care
- Satisfaction with Care
- Other

MATERNAL AND CHILD HEALTH DATA AVAILABLE IN EACH MATRIX

Summary Matrix

Findings from the Summary Matrix of 9 Topic Areas Covered in 17 National Surveys are listed below:

Topic Areas	No. of Surveys Covering Topic Areas
1. Demographics	17
2. Risk Factors	4
3. Health Status	15
4. Severity of Illness	9
5. Health Services Utilization	15
6. Delivery System Characteristics	11
7. Expenditures	6
8. Source of Payment	9
9. Other Special Features	7

This matrix also shows the number of topic areas covered in each survey.

Survey	No. of Topic Areas Covered in Each Survey
1. Annual	4
2. ARF	5
3. BDMP	3
4. Census	4
5. CHS	5
6. CES	3
7. HS&B	3
8. NAMCS	4
9. NHANES	8
10. NHIS	7
11. NHDS	5
12. NLS	9
13. NMCES	8
14. NMCUES	8
15. NNS/NFMS	4
16. Sample	4
17. SIPP	8

Matrix 1: Demographic Measures

Matrix 1 on Demographics highlights which surveys have information on age, sex, race and ethnicity, marital status, family size and composition, geographic area, income, education, employment, occupation, public assistance status, and child care arrangements. Thirteen out of the 17 surveys cover at least 9 of these 12 demographic measures. Only 5 surveys -- the Annual, BDMP, NAMCS, and NHDS -- collect 5 or fewer demographic measures.

Matrix 2: Risk Factor Measures

Matrix 2 on Risk Factors shows a very different picture. Just 5 surveys collect information on risk factors (nutrition, smoking, substance abuse, radiation/toxic exposures, exercise, delinquency/crime, LBW risk factors, and risk behavior during pregnancy). The NHANES, NLS, and NNS/NFMS collect at least 6 of these 8 risk factor measures. The most common area where risk factor information is collected relates to pregnancy.

Matrix 3: Health Status Measures

Matrix 3 on Health Status highlights which surveys have information on major diagnostic groupings (e.g., respiratory conditions), diagnoses (asthma), acute and chronic conditions, signs and symptoms, motor and social development, behavior problems, dental problems, pregnancy and delivery history, birth conditions, perceived health status, and patient disposition. Seven surveys -- the CHS, NAMCS, NHANES, NHIS, NLS, NMCES, and NMCUES collect at least 6 of the 12 health status measures. The Census and CES surveys have no data on health status.

The health status measures most commonly covered are major diagnostic groupings -- 12 surveys have such information. Eight surveys collect diagnosis, primarily from ICD-9-CM. Six surveys ask about the presence of an acute condition and 7 ask about chronic conditions. Only one survey, the CHS, collects information on motor and social development.

Matrix 4: Severity of Illness Measures

Matrix 4 on Severity of Illness shows which surveys ask about limitation of activity, restricted activity days, bed disability days, school-loss days, and work-loss days. Of the 9 surveys with information on severity of illness, the most common measures used are work-loss days and limitation of activity. The following surveys collect at least 4 severity of illness measures: NHIS, NMCES, NMCUES, and SIPP.

Matrix 5: Health Services Utilization Measures

Matrix 5 on Health Services Utilization highlights which surveys have information on institutionalization, hospital inpatient, hospital outpatient/clinics, emergency rooms, surgery/procedures, diagnostic tests, physician visits, other health provider visits, dental visits, family planning services, prenatal care, medications, and other health-related services. The surveys that cover 7 or more health services utilization measures are NMCES, NMCUES, NNS/NFMS, and NLS. The most common utilization measure found was hospitalization and physician visits. Fewer surveys collect information on institutionalization, emergency rooms, other health provider visits, dental visits, family planning services and prenatal care.

Matrix 6: Delivery System Characteristics Measures

Matrix 6 on Delivery System Characteristics shows which surveys have information on health service location, facility type, hospital supply, bed size, ownership, physician/health provider supply, physician/health provider specialty, practice arrangement, usual source of care, distance to provider, time interval since last visit, and waiting times. The surveys with at least 4 delivery system characteristics measures are: ARF, NHANES, NHIS, NMCES and NMCUES. The most common information collected is on health service location and facility type (e.g., clinic, office).

Matrix 7: Health Care Expenditures

Matrix 7 on Health Care Expenditures highlights which surveys have information on individual/total charges, payments, and reimbursements, out-of-pocket payments, premiums, employer/union contributions, copayments and deductibles, and outstanding medical bills. Of the 6 surveys with information on health care expenditures, only the CES, NMCES and NMCUES, cover more than 5 expenditure measures.

Matrix 8: Source of Payment/Health Insurance Coverage Measures

Matrix 8 on Source of Payment/Health Insurance Coverage shows which surveys have information on third party payers, type of plan (e.g., individual/ family), insurance benefits, time period of coverage, and reason for lack of insurance. Of the 9 surveys with information on insurance, the NHIS, NMCES, NMCUES and SIPP cover at least 4 of the 5 insurance measures. The questions most commonly asked relate to the expected third party payer (e.g., Medicaid, private insurance) and reasons for lack of insurance coverage.

Matrix 9: Other Special Features

Matrix 9 on Other Special Features shows which surveys have information on the impact of health problems on the family, barriers to care, and satisfaction with care. Of the 6 surveys that collect such information, only the NHANES covers all three measures. The areas most likely to be covered were impact of child's health problem and barriers to care.

SUMMARY MATRIX OF 9 TOPIC AREAS COVERED IN 17 NATIONAL SURVEYS

TOPIC AREAS / SURVEYS	REFERENCE PAGES*	(1) DEMOGRAPHICS	(2) RISK FACTORS	(3) HEALTH STATUS	(4) SEVERITY OF ILLNESS	(5) HEALTH SERVICES UTILIZATION	(6) DELIVERY SYSTEM CHARACTERISTICS	(7) EXPENDITURES	(8) SOURCE OF PAYMENT	(9) OTHER SPECIAL FEATURES
1. Annual	47/79	X		X		X	X			
2. ARF	48/84	X		X		X	X	X		
3. BDMP	50/94	X		X		X				
4. Census	51/98	X			X	X	X			
5. CHS	52/105	X	X	X	X	X				X
6. CES	54/112	X						X	X	
7. HS&B	55/118	X		X	X					
8. NAMCS	56/124	X		X		X	X			
9. NHANES	58/131	X	X	X	X	X	X		X	X
10. NHIS	60/142	X		X	X	X	X		X	
11. NHDS	62/155	X		X		X	X		X	
12. NLS	63/162	X	X	X	X	X	X	X	X	X
13. NMCES	66/173	X		X	X	X	X	X	X	X
14. NMCUES	70/184	X		X	X	X	X	X	X	X
15. NNS/NFMS	73/196	X	X	X		X				
16. Sample	75/210	X		X		X			X	
17. SIPP	77/216	X		X	X	X	X	X	X	X

*Reference page numbers for survey summaries and complete survey descriptions.

MATRIX 1: DEMOGRAPHIC MEASURES

SURVEYS DEMOGRAPHIC MEASURES	Annual (1)	ARF (2)	BDMP (3)	Census (4)	CHS (5)	CES (6)	HS&B (7)	NAMCS (8)	NHANES (9)	NHIS (10)	NHDS (11)	NLS (12)	NMCES (13)	NMCUES (14)	NNS/NFMS (15)	Sample (16)	SIPP (17)
Ref. Pages*	47 79	48 84	50 94	51 98	52 105	54 112	55 118	56 124	58 131	60 142	62 155	63 162	66 173	70 184	73 196	75 210	77 216
Age	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Sex	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Race & Ethnicity		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Marital Status				X	X	X	X		X	X	X	X	X	X	X	X	X
Family Size & Composition		X			X	X	X		X	X		X	X	X	X		X
Geographic Area	X	X	X	X	X		X	X	X	X	X	X	X	X	X	X	X
Income		X		X	X	X	X		X	X		X	X	X	X		X
Education		X		X	X	X	X		X	X		X	X	X	X	X	X
Employment		X				X	X		X	X		X	X	X	X		X
Occupation		X		X			X		X	X		X			X		X
Public Assistance Status		X		X		X	X		X	X		X	X	X		X	X
Child Care Arrangements					X							X					
Other		X			X		X					X	X	X	X	X	

*Reference page numbers for survey summaries and complete survey descriptions.

MATRIX 2: RISK FACTOR MEASURES

SURVEYS RISK FACTOR MEASURES	Annual (1)	ARF (2)	BDMP (3)	Census (4)	CHS (5)	CES (6)	HS&B (7)	NAMCS (8)	NHANES (9)	NHIS (10)	NHDS (11)	NLS (12)	NMCES (13)	NMCUES (14)	NNS/NFMS (15)	Sample (16)	SIPP (17)
Ref. Pages*	47 79	48 84	50 94	51 98	52 105	54 112	55 118	56 124	58 131	60 142	62 155	63 162	66 173	70 184	73 196	75 210	77 216
Nutrition					X				X			X			X		
Smoking					X				X			X			X		
Substance Abuse									X			X			X		
Radiation/ Toxic Exposures									X						X		
Exercise									X								
Delinquency/ Crime												X					
LBW Risk Factors					X				X			X			X		
Risk Behavior During Pregnancy					X				X			X			X		
Other		X			X				X			X			X		

*Reference page numbers for survey summaries and complete survey descriptions.

MATRIX 3: HEALTH STATUS MEASURES

SURVEYS HEALTH STATUS MEASURES	Annual (1)	ARF (2)	BDMP (3)	Census (4)	CHS (5)	CES (6)	HS&B (7)	NAMCS (8)	NHANES (9)	NHIS (10)	NHDS (11)	NLS (12)	NMCES (13)	NMCUES (14)	NNS/NFMS (15)	Sample (16)	SIPP (17)
Ref.	47	48	50	51	52	54	55	56	58	60	62	63	66	70	73	75	77
Pages*	79	84	94	98	105	112	118	124	131	142	155	162	173	184	196	210	216
Major Diagnostic Groupings	X		X				X	X		X	X	X	X	X	X	X	X
Diagnoses			X					X		X	X	X	X	X	X	X	
Acute Conditions					X			X	X	X			X	X			
Chronic Conditions					X		X	X	X	X			X	X			
Signs & Symptoms								X				X	X	X			
Motor & Social Development					X												
Behavior Problems	X				X				X								
Dental Problems									X								
Pregnancy & Delivery History		X			X				X			X			X		
Birth Conditions			X		X				X			X			X		
Perceived Health Status									X	X		X	X	X			X
Patient Disposition			X					X			X					X	
Other		X			X			X	X	X		X	X		X		

*Reference page numbers for survey summaries and complete survey descriptions.

MATRIX 4: SEVERITY OF ILLNESS MEASURES

SURVEYS → / SEVERITY OF ILLNESS MEASURES ↓	Annual (1)	ARF (2)	BDMP (3)	Census (4)	CHS (5)	CES (6)	HS&B (7)	NAMCS (8)	NHANES (9)	NHIS (10)	NHDS (11)	NLS (12)	NMCES (13)	NMCUES (14)	NNS/NFMS (15)	Sample (16)	SIPP (17)
Ref.	47	48	50	51	52	54	55	56	58	60	62	63	66	70	73	75	77
Pages*	79	84	94	98	105	112	118	124	131	142	155	162	173	184	196	210	216
Limitation of Activity					X				X	X			X	X			X
Restricted Activity Days										X			X	X			
Bed Disability									X	X			X	X			X
School-Loss Days					X		X		X	X							X
Work-Loss Days				X			X			X		X	X	X			X
Other				X	X		X					X					

*Reference page numbers for survey summaries and complete survey descriptions.

MATRIX 5: HEALTH SERVICES UTILIZATION

SURVEYS HEALTH SERVICES UTILIZATION MEASURES	Annual (1)	ARF (2)	BDMP (3)	Census (4)	CHS (5)	CES (6)	HS&B (7)	NAMCS (8)	NHANES (9)	NHIS (10)	NHDS (11)	NLS (12)	NMCES (13)	NMCUES (14)	NNS/NFMS (15)	Sample (16)	SIPP (17)
Ref.	47	48	50	51	52	54	55	56	58	60	62	63	66	70	73	75	77
Pages*	79	84	94	98	105	112	118	124	131	142	155	162	173	184	196	210	216
Institutionalization	X	X		X												X	
Hospital Inpatient	X	X	X		X				X	X	X	X	X	X	X	X	X
Hospital Outpatient/ Clinics		X								X		X	X	X	X		
Emergency Rooms										X			X	X			
Surgery/ Procedures					X					X	X	X	X	X	X		
Diagnostic Tests			X					X	X	X	X		X	X	X	X	
Physician Visits								X	X	X		X	X	X	X		X
Other Health Providers					X								X	X			X
Dental Visits									X	X			X	X			
Family Planning Services												X			X		
Prenatal Care					X							X			X		
Medications					X			X	X				X	X	X		
Other Health-Related Services		X						X				X	X	X	X		
Other												X				X	

*Reference page numbers for survey summaries and complete survey descriptions.

MATRIX 6: DELIVERY SYSTEM CHARACTERISTICS

SURVEYS / DELIVERY SYSTEM CHARACTERISTICS MEASURES	Annual (1)	ARF (2)	BDMP (3)	Census (4)	CHS (5)	CES (6)	HS&B (7)	NAMCS (8)	NHANES (9)	NHIS (10)	NHDS (11)	NLS (12)	NMCES (13)	NMCUES (14)	NNS/NFMS (15)	Sample (16)	SIPP (17)
Ref.	47	48	50	51	52	54	55	56	58	60	62	63	66	70	73	75	77
Pages*	79	84	94	98	105	112	118	124	131	142	155	162	173	184	196	210	216
Health Service Location		X						X		X	X	X	X	X			X
Facility Type	X	X		X						X			X	X			
Hospital Supply		X															
Bed Size		X									X						
Ownership				X						X	X						
Physician/ Health Provider Supply		X															
Physician/ Health Provider Specialty		X						X	X	X			X	X			
Practice Arrangement								X									
Usual Source of Care									X				X	X			X
Distance to Provider									X				X	X			
Time Interval Since Last Visit									X	X			X	X			
Waiting Times									X								
Other		X															

*Reference page numbers for survey summaries and complete survey descriptions.

MATRIX 7: HEALTH CARE EXPENDITURE MEASURES

SURVEYS	Annual (1)	ARF (2)	BDMP (3)	Census (4)	CHS (5)	CES (6)	HS&B (7)	NAMCS (8)	NHANES (9)	NHIS (10)	NHDS (11)	NLS (12)	NMCES (13)	NMCUES (14)	NNS/NFMS (15)	Sample (16)	SIPP (17)
HEALTH CARE EXPENDITURE MEASURES																	
Ref.	47	48	50	51	52	54	55	56	58	60	62	63	66	70	73	75	77
Pages*	74	84	94	98	105	112	118	124	131	142	155	162	173	184	196	210	216
Individual/ Total Charges													X	X			
Individual/ Total Payments						X							X	X			
Individual/ Total Reimbursements						X							X	X			X
Out-of-Pocket Payments						X							X	X			
Premiums						X							X	X			
Employer/Union Contributions						X							X	X			X
Copayments & Deductibles																	
Outstanding Medical Bills												X					
Other		X										X					

*Reference page numbers for survey summaries and complete survey descriptions.

MATRIX 8: SOURCE OF PAYMENT/HEALTH INSURANCE COVERAGE MEASURES

SURVEYS	Annual (1)	ARF (2)	BDMP (3)	Census (4)	CHS (5)	CES (6)	HS&B (7)	NAMCS (8)	NHANES (9)	NHIS (10)	NHDS (11)	NLS (12)	NMCES (13)	NMCUES (14)	NNS/NFHS (15)	Sample (16)	SIPP (17)
SOURCE OF PAYMENT/ HEALTH INSURANCE COVERAGE MEASURES																	
Ref. Pages*	47 74	48 84	50 94	51 98	52 105	54 112	55 118	56 124	58 131	60 142	62 155	63 162	66 173	70 184	73 196	75 210	77 216
Third Party Payer(s)						X			X	X	X		X	X		X	X
Type of Plan (Indiv,Family)						X				X			X	X			X
Insurance Benefits										X		X	X	X			
Time Period of Coverage													X	X			X
Reason for Lack of Insurance									X	X			X	X			X
Other										X		X					

*Reference page numbers for survey summaries and complete survey descriptions.

MATRIX 9: OTHER SPECIAL FEATURE MEASURES

SURVEYS / OTHER SPECIAL FEATURE MEASURES	Annual (1)	ARF (2)	BDMP (3)	Census (4)	CHS (5)	CES (6)	HS&B (7)	NAMCS (8)	NHANES (9)	NHIS (10)	NHDS (11)	NLS (12)	NMCES (13)	NMCUES (14)	NNS/NFMS (15)	Sample (16)	SIPP (17)
Ref. Pages*	47 74	48 84	50 94	51 98	52 105	54 112	55 118	56 124	58 131	60 142	62 155	63 162	66 173	70 184	73 196	75 210	77 216
Impact of Health Problem on Family					X				X			X					
Barriers to Care									X				X	X			
Satisfaction with Care									X	X							
Other																	X

*Reference page numbers for survey summaries and complete survey descriptions.

SURVEY SUMMARIES

ANNUAL CENSUS OF ADDITIONS AND RESIDENT PATIENTS IN STATE AND COUNTY MENTAL HOSPITALS (Annual) - #1

PURPOSE: This annual census is a compilation of state and county mental hospital data of resident patients and additions coded by mental disorder diagnostic groupings.

KEY WORDS: Behavior disorders (child); diagnosis (classification); health facilities; hospitalization; mental disorders, mental health services (utilization); substance use disorders

DATA AVAILABILITY:

Pericdicity:	Annual since 1980	Most Current Data:	1982
Regional Data:	Yes	SMSA Data:	No
State Data:	Yes		

TOPIC AREAS:

1. Demographics
   - Age
   - Sex
   - Geographic area
3. Health Status
   - Major diagnostic groupings (mental disorders)
5. Health Services Utilization
   - Institutionalization
   - Mental hospitals (additions and residents)
6. Delivery System Characteristics
   - Facility type (state and county mental hospitals)

CONTACT:

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Division of Biometry and Applied Sciences
National Institute of Mental Health
5600 Fishers Lane, Room 18C-07
Rockville, MD 20857
(301) 443-3343

-- FOR MORE INFORMATION, SEE PAGE 79 --

AREA RESOURCE FILE SYSTEM (ARF) - #2

PURPOSE: The ARF system is a secondary data source compiled of data from over 75 national surveys. The purpose of this annual linkable file system is to provide health planning information on health professions' and health services' supply, utilization, requirements, costs, and related issues.

KEY WORDS: Diagnosis (classification); emergency service, hospital (utilization); expenditures, health; fertility; fetal death; financing, government; health facilities; health manpower; health occupations; health services accessibility; hospitalization; infant mortality, morbidity; mortality; nursing home (utilization); outpatient clinics (utilization); professional practice; specialties

DATA AVAILABILITY:

Periodicity:	Varies by primary data source	Most Current Data:	1985
		SMSA Data:	Yes
Regional Data:	Yes	State Data:	Yes

TOPIC AREAS:

(See complete survey for information about the 4 ARF subsystems)

1. Demographics

   - Age
   - Sex
   - Race and ethnicity
   - Family size and composition
   - Education
   - Income
   - Public Assistance Status
   - Employment Status
   - Occupation
   - Veteran Status

2. Risk Factors

   - Fluoridated water

3. Health Status

   - Mortality
   - Morbidity
   - Natality
   - Fertility

5. Health Services Utilization

- Institutionalization
- Home care visits
- Nursing home visits
- Hospitalization (inpatient, outpatient)

6. Delivery System Characteristics

- Location of health services
- Supply of hospitals
- Supply of nursing homes
- Supply of HMOs
- Supply of physicians by specialty, board certification, professional activity, age, and sex
- Supply of other health professionals
- Health manpower shortage areas
- Supply of health professions training schools

7. Health Care Expenditures

- Hospital expenditures
- County and local government expenditures for health and hospitals
- Medicare reimbursement rates
- Hospital inpatient days paid by Medicare and Medicaid

CONTACT:

Colleen Goodman
ARF Project Director
Applied Management Sciences, Inc.
962 Wayne Avenue, Suite 701
Silver Spring, MD 20910
(301) 585-8181

Howard Stambler
Office of Data Analysis and Management
Bureau of Health Professions
Health Resources and Services Administration
Parklawn Building, Rm. 8-41
5600 Fishers Lane
Rockville, MD 20857
(301) 443-6920

-- FOR MORE INFORMATION, SEE PAGE 84 --

BIRTH DEFECTS MONITORING PROGRAM (BDMP) - #3

PURPOSE: The BDMP is designed to monitor the incidence of birth defects and other newborn conditions. CDC uses hospital discharge data abstracted by the Commission on Professional Hospital Activities (CPHA).

KEY WORDS: Abnormalities (congenital); birth injuries; birth weight; diagnosis (classification), diagnostic tests, routine; hospitalization; surgery-operative

DATA AVAILABILITY:

Periodicity:	Annual since 1970	Most Current Data:	1985
Regional Data:	Yes	SMSA Data:	No
State Data:	Yes		

TOPIC AREAS:

1. Demographics

   - Age
   - Sex
   - Race
   - Geographic area

3. Health Status

   - Major diagnostic groupings (congenital malformations)
   - Diagnosis (congenital malformations)
   - Patient disposition
   - Birth weight

5. Health Services Utilization

   - Hospitalization

CONTACT:

Larry Edmonds
Birth Defects and Genetic Diseases Branches
Division of Birth Defects and
Developmental Disabilities
Center for Environmental Health
Centers for Disease Control
Atlanta, GA 30333
(404) 452-4035

-- FOR MORE INFORMATION, SEE PAGE 94 --

CENSUS OF PERSONS IN INSTITUTIONS AND OTHER GROUP QUARTERS (Census) - #4

PURPOSE: As part of the 1980 Census of Population, this national census presents aggregated characteristics of the population under care in institutions and of the noninstitutionalized population residing in group quarters.

KEY WORDS: Activities of daily living; chronic disease; disability evaluation; health facilities; hospitalization; mental disorders; mental health services (utilization); ownership (hospital)

DATA AVAILABILITY:

Periodicity:	Every 10 years since 1950	Most Current Data:	1980
		SMSA Data:	Yes
Regional Data:	Yes		
State Data:	Yes		

DATA ELEMENTS:

1. Demographics

- Age
- Sex
- Race and ethnicity
- Marital status
- Geographical area
- Income
- Education
- Occupation
- Public assistance status

4. Severity of Illness

- Work disability
- Public transportation disability

5. Health Services Utilization

- Institutional settings and group quarters

6. Delivery System Characteristics

- Facility type
- Ownership

CONTACT:

Jack McNeil
Bureau of Census
U.S. Department of Commerce
14th St. bet. E and Constitution Ave., N.W.
Washington, D.C. 20233
(202) 736-7946

-- FOR MORE INFORMATION, SEE PAGE 98 --

CHILD HEALTH SUPPLEMENT (CHS) - #5

PURPOSE: The Child Health Supplement is a national household survey of children from birth through 17, from the 50 states and the District of Columbia. It was designed to supplement the National Health Interview Survey (NHIS) to provide a comprehensive set of descriptive statistics on the health status of children and the correlates of health.

KEY WORDS: Abnormalities (congenital); activities of daily living; acute disease; ambulatory care (utilization); behavior disorders (child); birth injuries; birth weight; development (child); chronic disease; delivery; diagnosis (classification); disability evaluation; drugs (prescription); drugs, nonprescription; fetal death; gestational age; health manpower (utilization); hospitalization; infant premature; labor complications; motor skills; nutrition; personality development; pregnancy; pregnancy complications; prenatal care; signs and symptoms; smoking; social adjustment; surgery, operative; substance use disorders

DATA AVAILABILITY:

Periodicity:	One time survey	Most Current Data:	1981
Regional Data:	Yes	SMSA Data:	Yes
State Data:	No		

TOPIC AREAS:

1. Demographics

- Age
- Sex
- Race and ethnicity
- Family income
- Marital status
- Geographic area
- Parent's relationship to child
- Family size and birth order
- Child care arrangements
- School status

2. Risk Factors

- Risk behavior during pregnancy
- LBW risk factors
- Smoking
- Sleep habits
- Use of seat belts
- Infant feeding (including breastfeeding) practices

3. Health Status

- Early childhood motor and social development
- Behavior problems
- Weight status and condition of eyes and teeth
- Acute conditions
- Chronic conditions and impairments
- Prenatal event
- Birth event

4. Severity of Illness

- School disability/limitation of activity
- Pregnancy disability

5. Health Services Utilization

- Hospitalization
- Surgery
- Prenatal care
- Mental health therapist visits
- Medications

9. Other Special Features

- Impact/social effects of child's health problem

CONTACT: Gerry Hendershot
Illness and Disability Branch
Division of Health Interview Statistics
National Center for Health Statistics
3700 East West Highway
Hyattsville, MD 20782
(301) 436-7089

-- FOR MORE INFORMATION, SEE PAGE 105 --

CONSUMER EXPENDITURE SURVEY (CES) - #6

PURPOSE: The CES is an annual national interview and diary survey of noninstitutionalized persons. Its purpose is to maintain the Consumer Price Index and to examine consumption patterns of different kinds of consumer units.

KEYWORDS: Expenditures, health; fees, charges; financing, government; insurance, health

DATA AVAILABILITY:

Periodicity:	Annual since 1979	Most Current Data:	1985
Regional Data:	Yes	SMSA Data:	Yes
State Data:	No		

TOPIC AREAS:

1. Demographics

- Age (head of consumer unit only)
- Sex
- Race and ethnicity
- Family size and composition
- Geographic area
- Education
- Employment status
- Public assistance status
- Marital status
- Income

7. Health Care Expenditures

- Payments and reimbursement by consumer unit for medical services (hospital, physician, other practitioners, dental care, lab, x-ray, nursing home, nursing services, therapeutic treatment, eye care, medications, medical supplies, other services)
- Insurance premiums
- Employer/union/other contributions to premiums
- Out-of-pocket payments

8. Source of Payment/Health Insurance Coverage

- Third party payers
- Type of plan (persons/family members covered)

CONTACT: Beth Harrison/Kirk Kaneer
Bureau of Labor Statistics
Department of Labor
600 E. Street, NW, Room 4216
Washington, DC 20012
(202) 272-5060

-- FOR MORE INFORMATION, SEE PAGE 112 --

HIGH SCHOOL AND BEYOND (HS&B) - #7

PURPOSE: The HS&B is a national longitudinal survey of high school sophomores and seniors through their early adult years. Using multiple data bases, it focuses on how the educational process and subsequent choices affect work, post-secondary education, marriage, cohabitation, child-bearing, leisure-time behavior, values and attitudes.

KEY WORDS: Activities of daily living; chronic disease; diagnosis (classification); disability evaluation; motor skills; personality development; quality of life; social adjustment

DATA AVAILABILITY:

Pericdicity:	Biennial from 1980-1990	Most Current Data:	1984
Regional Data:	Yes	SMSA Data:	No
State Data:	No		

TOPIC AREAS:

1. Demographics

- Age
- Sex
- Race and ethnicity
- Marital status
- Family size and composition
- Religious background
- Geographic area
- Income
- Employment
- Occupation
- Education
- Public assistance status

3. Health Status

- Major diagnostic groupings
- Chronic conditions

4. Severity of Illness

- Work disability
- School disability
- Use of special programs for handicapped

CONTACT:

Jeffrey Owings
Center for Statistics
U.S. Department of Education
1200 Nineteenth Street, N.W.
Washington, D.C. 20208
(202) 254-7361

-- FOR MORE INFORMATION, SEE PAGE 118 --

NATIONAL AMBULATORY MEDICAL CARE SURVEY (NAMCS) - #8

PURPOSE: The NAMCS is a national survey of ambulatory medical care services provided in the U.S.. These ambulatory office visits are made to non-federal physicians in office-based practice and engaged in direct patient care.

KEY WORDS: Acute disease; ambulatory care (utilization); chronic disease; diagnosis (classification); diagnostic tests, routine; drugs (prescription); drugs, nonprescription; follow-up care; medical history taking; physician (utilization); post-operative care; professional practice; preventive health services (utilization); signs and symptoms; specialties

DATA AVAILABILITY:

Periodicity:	Annual from 1973-1981; periodically since	Most Current Data:	1981
		SMSA Data:	Yes
Regional Data:	Yes		
State Data:	No		

TOPIC AREAS:

1. Demographics

   - Age
   - Sex
   - Race and ethnicity
   - Geographic area

3. Health Status

   - Acute conditions
   - Chronic conditions
   - Major diagnostic groupings
   - Diagnoses
   - Signs and symptoms
   - Reason for visit
   - Patient disposition

5. Health Services Utilization

   - Physician visits
   - Diagnostic tests
   - Preventive health visits
   - Prescription and over-the-counter medication

6. Delivery System Characteristics

- Site of care
- Practice arrangement
- Physician specialty

CONTACT: James DeLozier
Ambulatory Care Statistics Branch
Division of Health Care Statistics
National Center for Health Statistics
3700 East West Highway
Hyattsville, MD 20782
(301) 436-7132

-- FOR MORE INFORMATION, SEE PAGE *124* --

NATIONAL HEALTH AND NUTRITION EXAMINATION SURVEY (NHANES) -#9

PURPOSE: The NHANES is a national cross-sectional survey of noninstitutionalized persons based on household interviews, physical examinations, and clinical and laboratory tests to assess the health and nutritional status of persons 6 months to 74 years.

KEY WORDS: Abnormalities (congenital); activities of daily living; acute disease; alcohol drinking; ambulatory care (utilization); attitude to health; birth injuries; birth weight; chronic disease; dental care (utilization); diagnosis (classification); diagnostic tests, routine; disability evaluation; drugs, nonprescription; drugs (prescription); environmental pollutants (exposure); financing, government; health manpower (utilization); health services accessibility; hospitalization; infant, premature; insurance, health; medical history taking; mental disorders; nutrition; physical examination; physician (utilization); signs and symptoms, smoking; specialties; substance use disorders.

DATA AVAILABILITY:

Periodicity:	Periodically since 1960	Most Current Data:	1984
		State Data:	No
Regional Data:	Yes	SMSA Data:	Yes

DATA ELEMENTS:

1. Demographics

- Age
- Sex
- Race and ethnicity
- Marital status
- Family size and composition
- Public assistance status
- Income
- Education
- Employment status
- Occupation
- Geographic area
- Poverty status

2. Risk Factors

- Smoking
- Drinking
- Substance abuse
- Unusual substance intake (e.g., clay)
- Coffee use
- Aspirin use
- Environmental exposure
- TB exposure
- Exercise
- History of LBW
- Age of mother at birth
- Infant feeding practices
- Blood lead levels
- Nutrition

3. Health Status

- Birth conditions (selected)
- Acute conditions (selected)
- Chronic conditions (selected)
- Perceived health status
- Body measurement for height, weight, skinfold
- Birth weight
- Reason for visit
- Dental caries
- Premature birth

4. Severity of Illness

- Limitation of activity (for selected conditions)
- School-loss days (for selected conditions)
- Bed disability days (for selected conditions)

5. Health Services Utilization

- Hospitalization
- Physician visits
- Dental visits
- Medications

6. Delivery System Characteristics (HHANES only)

- Physician specialty
- Time interval since last visit
- Usual source of care
- Distance to provider
- Waiting time

8. Source of Payment/Health Insurance Coverage (HHANES only)

- Third party payer
- Reasons for lack of insurance

9. Other Special Features

- Changes in living conditions, lifestyle or employment due to health condition
- Reasons for lack of health care
- Satisfaction with care

CONTACT: Dale Hitchcock
Division of Health Examination Statistics
National Center for Health Statistics, Rm 2-58
3700 East-West Highway
Hyattsville, MD 20782
(301) 436-7080

-- FOR MORE INFORMATION, SEE PAGE *131* --

NATIONAL HEALTH INTERVIEW SURVEY (NHIS) - #10

PURPOSE: The NHIS is a national cross-sectional household interview survey of the civilian noninstitutionalized population. This annual survey is designed to collect data on acute and chronic conditions, impairments, disability, limitation of activity, and health services utilization.

KEY WORDS: Activities of daily living; acute disease; ambulatory care (utilization); attitude to health, chronic disease; dental care (utilization); diagnosis, classification; disability evaluation; financing, government; hospitalization; insurance, health; physician (utilization); signs and symptoms; surgery, operative

DATA AVAILABILITY:

Periodicity:	Annual since 1957	Most Current Data:	1983
Regional Data:	Yes	SMSA Data:	Yes
State Data:	No		

TOPIC AREAS:

1. Demographics

   - Age
   - Sex
   - Marital status
   - Family size and composition
   - Geographic area
   - Public assistance status
   - Income
   - Education
   - Race and ethnicity
   - Employment Status
   - Occupation

2. Risk Factors (see Child Health Supplement)

3. Health Status

   - Acute conditions
   - Chronic conditions and impairments
   - Major diagnostic groupings
   - Diagnoses
   - Condition causing physician visit
   - Reasons for physician visit
   - Perceived health status

4. Severity of Illness

- Limitation of activity
- Restricted activity days
- Bed disability days
- School-loss days
- Work-loss days

5. Health Services Utilization

- Hospitalization (inpatient)
- Hospital outpatient/clinics
- Emergency rooms
- Physician visits
- Dental visits
- Surgery

6. Delivery System Characteristics

- Facility type
- Site of care
- Physician specialty
- Ownership status
- Time interval since last visit

8. Sources of Payment/Health Insurance Coverage

- Third party payers
- Type of coverage (individual, family)
- Insurance benefits
- Insurance during unemployment
- Reasons for lack of insurance

9. Other Special Features

- Satisfaction with care

CONTACT:

Gerry Hendershot
Illness and Disability Branch
Division of Health Interview Statistics
3700 East West Highway
National Center for Health Statistics
Hyattsville, MD 20782
(301) 436-7089

-- FOR MORE INFORMATION, SEE PAGE 142 --

NATIONAL HOSPITAL DISCHARGE SURVEY (NHDS) - #11

PURPOSE: The NHDS is an annual national survey of inpatient utilization of non-federal short-stay hospitals in the U.S.. Data are abstracted from patients' medical records.

KEY WORDS: Delivery; diagnosis (classification); diagnostic related groups; financing, government; health facilities; hospitalization; insurance, health; ownership (hospital); surgery, operative

DATA AVAILABILITY:

Periodicity:	Annual since 1965	Most Current Data:	1984
Regional Data:	Yes	SMSA Data:	No
State Data:	No		

TOPIC AREAS:

1. Demographics

   - Age
   - Sex
   - Race and ethnicity
   - Marital status
   - Geographic area

3. Health Status

   - Major diagnostic grouping
   - Patient disposition
   - Diagnoses

5. Health Services Utilization

   - Hospitalization
   - Surgery/procedures

6. Delivery System Characteristics

   - Hospital size
   - Hospital location
   - Ownership

8. Sources of Payment/Health Insurance Coverage

   - Third party payers

CONTACT:

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Nation Center for Health Statistics
3700 East West Highway, Rm 2-63
Hyattsville, MD 20782
(301) 436-7125

-- FOR MORE INFORMATION, SEE PAGE 155 --

NATIONAL LONGITUDINAL SURVEY OF LABOR MARKET EXPERIENCE OF YOUTH (NLS) - #12

PURPOSE: The NLS is an annual longitudinal survey of 14-22 year olds, including a supplementary sample of youth in the military. Its purpose is to evaluate the training and work experience of youth. The NLS also collects extensive information on formal education, marriage and fertility events, income and assets, family background, attitudes, aspirations and expectations, drug and alcohol use, family planning, child care, and maternal and child health care.

KEY WORDS: Activities of daily living; alcohol drinking; ambulatory care (utilization); attitude to health, birth injuries; birth weight; contraception; delivery; diagnosis (classification); diagnostic tests, routine; disability evaluation; family planning; fertility; fetal death; gestational age; hospitalization; immunizations; infant mortality; infant, premature; insurance, health; labor complications; nutrition; outpatient clinics (utilization); physician (utilization); pregnancy; pregnancy complications; prenatal care; preventive health services (utilization); radiations (exposure); signs and symptoms; smoking; substance use disorders

DATA AVAILABILITY:

Periodicity:	Began in 1966 and conducted periodically until 1977. Since 1977, annual.	Most Current Data:	1984
		SMSA Data:	Yes
		Regional Data:	Yes
		State Data:	No

TOPIC AREAS:

1. Demographics

- Age
- Sex
- Race and ethnicity
- Marital status
- Family size and composition
- Geographic area
- Residence
- Migration
- Income and assets
- Employment status
- Education, training
- Occupation
- Job satisfaction
- Military status
- Public assistance status
- Religion
- Child care arrangements

2. Risk Factors

- Drinking (also prior to pregnancy)
- Drug use (also prior to pregnancy)
- Smoking (also prior to pregnancy)
- Nutrition during pregnancy
- Pregnancy intervals
- Infant feeding practices (including breastfeeding)
- School discipline
- Delinquency and crime

3. Health Status

- Major diagnostic groupings
- Diagnoses
- Symptoms or conditions of child (1 year or less)
- Height and weight
- Obstetric history
- Pregnancy outcome
- Reason for visit
- Perceived health status

4. Severity of Illness

- Functional limitations
- Work disability

5. Health Services Utilization

- Hospitalization (for newborn)
- Prenatal care
- Diagnostic tests (during pregnancy)
- Surgery/procedures
- Clinic visits (during first year)
- Physician visits (during first year)
- Preventive care services (during first year)
- Employment-based health services
- Immunizations
- Family planning services

6. Delivery System Characteristics

- Site of care (for child during first year)

7. Health Care Expenditures

- Outstanding bills
- Disability payments (received)
- Sick days (with pay)
- Maternity/paternity leave

8. Source of Payment/Health Insurance Coverage

- Insurance benefits
- Health benefits as an enlistment factor

9. Other Special Features

- Impact of family member's illness on work

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-- FOR MORE INFORMATION, SEE PAGE 162 --

THE NATIONAL MEDICAL CARE EXPENDITURE SURVEY (NMCES) - #13

PURPOSE: The NMCES is a national multi-stage survey of illness, health care utilization, expenditures, and source of payment/health insurance coverage collected from a sample of the U.S. noninstitutionalized population during 1977. Data were obtained from a series of 6 interviews per household along with verification surveys of physicians, health care facilities, employers and insurance companies. (See its 1980 counterpart, NMCUES.)

KEY WORDS: Activities of daily living; acute disease; ambulatory care (utilization); attitude to health; chronic disease; dental health services (utilization); deductibles and coinsurance; diagnosis (classification); diagnostic tests, routine; disability evaluation; drugs (prescription); emergency service, hospital (utilization); equipment and supplies (utilization); expenditures, health; fees and charges; financing, government; health manpower (utilization); health services accessibility; hospitalization; insurance, health; outpatient clinics (utilization); physician (utilization); professional practice; specialties; surgery, operative.

DATA AVAILABILITY:

Periodicity:	One-time survey	Most Current Data:	1977
Regional Data:	Yes	SMSA Data:	Yes
State Data:	No		

TOPIC AREAS:

1. Demographics

   - Age
   - Sex
   - Race and ethnicity
   - Marital status
   - Family size and composition
   - Geographic area (region and SMSA)
   - Income
   - Education
   - Employment
   - Public assistance status

2. Health Status

- Acute conditions
- Chronic Conditions
- Major diagnostic groupings
- Diagnoses
- Perceived health status
- Reason for visit
- Signs and symptoms

3. Severity of Illness

- Limitation of activity
- Restricted activity days
- Bed disability days
- Work-loss days

4. Health Services Utilization

- Hospitalization (inpatient and outpatient department/hospital clinic)
- Emergency room visits
- Physician visits
- Dental visits
- Other medical provider visits
- Surgery
- Diagnostic tests
- Medications
- Other medical services (e.g., hearing aid, wheel chair)

5. Delivery System Characteristics

- Facility type
- Site of care
- Physician/health provider specialty
- Usual source of medical and dental care
- Distance to provider
- Time interval since last visit

6. Health Care Expenditures

- Individual/total charges for medical/dental services
- Individual/total payments for medical/dental services
- Individual/total reimbursements for medical/dental services
- Out-of-pocket payments
- Premiums
- Contributions by employer/others to premium

7. Source of Payment/Health Insurance Coverage

- Third party payers
- Type of plan
- Insurance benefits
- Reasons for lack of coverage
- Time period of coverage (full/part year)

8. Other Special Features

- Unmet needs/barriers to care

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-- FOR MORE INFORMATION, SEE PAGE 173 --

NATIONAL MEDICAL CARE UTILIZATION AND EXPENDITURE SURVEY (NMCUES) - #14

PURPOSE: The NMCUES is a national multi-stage survey of illness, health care utilization, expenditures, and source of payment/insurance coverage collected from a sample of the U.S. noninstitutionalized population during 1980. Data were obtained from a series of 5 in-person and telephone interviews per household spaced over 15 months in addition to a Medicare and Medicaid verification survey. (See its 1977 counterpart, NMCES.)

KEY WORDS: Activities of daily living; acute disease; ambulatory care (utilization); attitude to health; chronic disease; dental health services (utilization); deductibles and coinsurance; diagnosis (classification); diagnostic tests, routine; disability evaluation; drugs (prescription); emergency, hospitalization; equipment and supplies (utilization); expenditures, health; fees and charges; financing, government; health manpower (utilization); health services accessibility; hospitalization; insurance, health; outpatient clinics (utilization); physician (utilization); preventive health services (utilization); professional practice, signs and symptoms; specialties; surgery, operative.

DATA AVAILABILITY:

Periodicity:	One-time survey	Most Current Data:	1980
Regional Data:	Yes	SMSA Data:	Yes
		State Data:	No

TOPIC AREAS:

1. Demographics

- Age
- Sex
- Race, ethnicity
- Family size, composition
- Public assistance status
- Income
- Education
- Employment status
- Marital status
- Geographic area (region, SMSA)

3. Health Status

- Acute conditions
- Chronic conditions
- Major diagnostic groupings
- Diagnoses
- Perceived health status
- Reason for visit
- Signs and symptoms

4. Severity of Illness

- Limitation of activity
- Restricted activity days
- Bed disability days
- Work-loss days

5. Health Services Utilization

- Hospitalization (in/outpatient department/clinic)
- Emergency room visits
- Physician visits
- Dental visits
- Other medical provider visits
- Surgery
- Diagnostic tests
- Medications
- Other medical services (e.g., hearing aid, wheel chair)

6. Delivery System Characteristics

- Facility type
- Site of care
- Physician/health provider specialty
- Usual source of medical and dental care
- Distance to provider
- Time interval since last visit

7. Health Care Expenditures

- Individual/total charges for medical/dental services
- Individual/total payments for medical/dental services
- Individual/total reimbursements for medical/dental services
- Out-of-pocket payments
- Premiums
- Contributions by employer/others to premium

8. Source of Payment/Health Insurance Coverage

- Third party payers
- Reasons for lack of coverage
- Time period of coverage (full/part-year)
- Insurance benefits
- Type of plan

9. Other Special Features

. Unmet needs/barriers to care

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-- FOR MORE INFORMATION, SEE PAGE 184 --

NATIONAL NATALITY SURVEY and NATIONAL FETAL MORTALITY SURVEY (NNS/NFMS) - #15

PURPOSE: The NNS/NFMS are follow-back surveys of one or more informants identified on the Certificate of Live Birth or the Report of Fetal Death. Data on social, demographic, maternal and infant health characteristics are collected by mail or telephone to supplement the vital records.

KEY WORDS: Abnormalities (congenital); alcohol drinking; birth injuries; birth weight; contraception; delivery; diagnosis (clasification); diagnostic tests, routine; environmental pollutants (exposure); family planning; fertility; fetal death; gestational age; hospitalization; infant mortality; infant, premature; labor complications; nutrition; post-natal care; pregnancy; pregnancy complications; prenatal care; radiations (exposure); smoking; sterilization, tubal; substance use disorders

DATA AVAILABILITY:

Periodicity:	Periodically since 1963	Most Current Data:	1980
		SMSA Data:	Yes
Regional Data:	Yes	State Data:	Yes

TOPIC AREAS:

1. Demographics

- Age
- Sex
- Race and ethnicity
- Marital status
- Family size
- Geographic area
- Income
- Education
- Employment status
- Occupation

2. Risk Factors

- Smoking
- Drinking
- Caffeine use
- Aspirin use
- Radiation exposure
- Chemical exposure
- Nutrition
- Birth intervals
- Infant feeding practices (including breastfeeding)

3. Health Status

- Major diagnostic groupings
- Diagnoses (conditions during pregnancy)
- Obstetric history
- Pregnancy and labor complications
- Gestational age
- Infant birth weight
- APGAR score
- Congenital malformations
- Birth injuries

5. Health Services Utilization

- Prenatal care
- Diagnostic tests
- Delivery
- Newborn care
- Postpartum care
- Family planning
- Sterilization

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-- FOR MORE INFORMATION, SEE PAGE 196 --

SAMPLE SURVEY OF STATE AND COUNTY MENTAL HOSPITAL INPATIENT ADMISSIONS (Sample) - #16

PURPOSE: This 2-staged sample survey of admissions to inpatient services of state and county mental hospitals has been conducted periodically since 1969. Diagnostic and utilization data are collected from hospital medical records and from a 3-month follow-up survey.

KEY WORDS: Behavior disorders (child); counseling; chronic disease; diagnosis (classification); diagnostic tests, routine; financing, government; follow-up care; hospitalization; insurance, health; mental disorders; mental health services (utilization); substance use disorders

DATA AVAILABILITY:

Periodicity:	Periodically since 1969	Most Current Data:	1980
		SMSA Data:	No
Regional Data:	Yes	State Data:	No

TOPIC AREAS:

1. Demographics

   - Age
   - Sex
   - Race and ethnicity
   - Marital status
   - Geographic area
   - Education
   - Public assistance status
   - Legal status

3. Health Status

   - Major diagnostic grouping
   - Diagnoses (mental disorders)
   - Patient disposition

5. Health Services Utilization

   - Institutionalization
   - Hospitals (state, county mental hospitals)
   - Other mental health services (current, prior)
   - Referral source

8. Source of Payment/Health Insurance Coverage

   - Third party payers

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-- FOR MORE INFORMATION, SEE PAGE 209 --

SURVEY OF INCOME AND PROGRAM PARTICIPATION (SIPP) - #17

PURPOSE: The SIPP is a national multi-stage household survey of noninstitutionalized persons ages 15 and over. The purpose of the survey is to collect information on all sources of cash and noncash income, eligibility and participation in various government transfer programs, assets and liabilities, pensions, taxes, labor force status and disabilities.

KEY WORDS: Activities of daily living; alcohol drinking; ambulatory care (utilization); attitude to health; chronic disease; diagnosis (classification); disability evaluation; expenditures, health; financing, government; health facilities; hospitalization; insurance, health; mental disorders; physician (utilization); professional practice; substance use disorders.

DATA AVAILABILITY:

Periodicity:	Quarterly and annually since 1983		
Most Current Data:	1985	State Data:	No
Regional Data:	Yes	SMSA Data:	No

TOPIC AREAS:

1. Demographics

   - Age
   - Sex
   - Race
   - Marital status
   - Geographic area
   - Income
   - Education
   - Employment status
   - Occupation
   - Public assistance status

3. Health Status

   - Major diagnostic groupings
   - Perceived health status

4. Severity of Illness

   - Limitation of activity
   - Bed disability
   - School disability
   - Work disability

5. Health Services Utilization

   . Hospitalization
   . Physician visits
   . Qualified assistant visits

6. Delivery System Characteristics

   . Usual source/site of care

7. Health Care Expenditures

   . Total reimbursement (for physician visits)
   . Employer contribution

8. Sources of Payment

   . Third party payers
   . Type of plan
   . Time period of coverage
   . Reasons for lack of insurance

9. Other Special Features

   . Use of aide/helper for home care

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-- FOR MORE INFORMATION, SEE PAGE 215--

COMPLETE SURVEY DESCRIPTIONS

ANNUAL CENSUS OF ADDITIONS AND RESIDENT PATIENTS IN STATE AND COUNTY MENTAL HOSPITALS (Annual) - #1

SPONSOR

National Institute of Mental Health, DHHS

PURPOSE

This is an annual census of the number of resident patients and persons admitted (additions) to state and county mental hospitals. State and county mental hospitals include short-term intensive and long-term psychiatric treatment hospitals operated by the state, public prolonged care, and state and county operated mental hospitals. Veterans Administration hospitals, military hospitals, Public Health Service hospitals and territorial hospitals are not included in this Census. Diagnostic data are coded by the primary mental disorder according to the International Classification of Diseases, 9th Revision, Clinical Modification (ICD-9-CM) and the Diagnostic and Statistical Manual of Mental Disorders, Third Edition (DSM-III).

SURVEY DESIGN

This annual census is a compilation of state and county mental hospital data rather than an actual survey. State mental health agencies and hospitals voluntarily send their hospital patient data in aggregate counts to NIMH to be published. Some 36 states completed the census form for the hospitals. Hospitals in the other 14 states and 4 territories completed the forms themselves. The response rate for additions was 82%, and for residents, it was 77%. The actual survey size was 276 facilities.

A major change in 1981 affects the comparison of data with previous years. Prior to 1981, diagnostic data were coded according to the International Classification of Diseases, 8th Revision, (ICD-8) and the Diagnostic and Statistical Manual of Mental Disorders, Second Edition (DSM-II).

KEY WORDS

Behavior disorders (child); diagnosis (classification); health facilities; hospitalization; mental disorders; mental health services (utilization); substance use disorders

CONTENT SUMMARY

1. **Demographic** information covers age, sex, state, and geographic area.
2. **Risk Factors** NA
3. **Health Status** information covers selected mental health disorders.
4. **Severity of Illness** NA
5. **Health Services Utilization** information is collected on number of state and county mental hospital inpatient residents and additions.
6. **Delivery System Characteristics** information is collected on type of hospital.
7. **Health Care Expenditures** NA
8. **Source of Payment/Health Insurance Coverage** NA
9. **Other Special Features** NA

CHILD POPULATION SURVEYED

In 1984, approximately five percent (6,000) of the resident population of 126,359 was made up of persons under 18. Approximately five percent (19,333) of the total number of additions (386,660) were persons under 18. (Age groupings for child data on public tapes include those under 5, 5-9, 10-14, 15-17, 18-19.) The published reports include the following age breakdowns: under 18, 18-24, 25-44, 44-64, 65 and over.

FREQUENCY

This annual census began in 1880 under the Census Bureau and was taken over by NIMH in 1949. 1982 is the most current year for which data are available.

AVAILABILITY

Published data from the 1982 census are available. Tapes are available at no cost for the years 1970 to 1982. Blank tapes must be provided. Both regional and state data are available. No data are available by SMSA.

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=======

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TOPIC AREAS
===========

1. **Demographics**

   A. Age
   B. Sex
   C. Geographic area (region, state)

2. **Risk Factors** NA

3. **Health Status**

   A. Mental disorder diagnostic groupings: mental retardation, alcohol related, substance related, organic disorders, affective disorders, schizophrenia related, other psychotic, anxiety/somatic disorders, personality disorders, pre-adult disorders, other non-psychotic, social, no mental disorder, deferred/undiagnosed

4. **Severity of Illness** NA

5. **Health Services Utilization**

   A. State and county mental hospitals

      i. Number of additions and resident patients. Additions are defined as number of returns from extended leave as well as admissions and readmissions and transfers from other state and county hospitals. A person admitted more than once during the year is counted separately each time. Resident patients are defined as persons physically present for 24 hours per day in the inpatient service at the end of the year.

6. **Delivery System Characteristics**

   A. Facility type (state and county mental hospitals)

7. **Health Care Expenditures** NA

8. **Source of Payment/Health Insurance Coverage** NA

9. **Other Special Features** NA

STRENGTHS FOR CHRONICALLY ILL CHILDREN

A. This survey provides aggregate national and state mental health data by selected diagnostic categories for children under 18.

WEAKNESSES FOR CHRONICALLY ILL CHILDREN

A. No information is collected on severity of illness, use of specific health services in the hospital, expenditures and source of payment/health insurance coverage.

B. No age breakdowns are provided for children under 18 in the published reports.

C. Overcounting of the number of episodes may occur because a person admitted more than once during the year is counted separately each time.

D. The prevalence of specific childhood mental disorders is very low because of the small number of children represented in state and county mental hospitals. Too few cases are available to analyze child-related mental disorders. Moreover, because state and county mental hospitals are facilities of "last resort," they do not represent the true number of child-related mental disorders.

E. In the published diagnostic groupings there is only one child-specific category: preadult disorders. In DSM-III and ICD-9-CM, adjustment disorders are not identified by age, but by the predominant symptom, so that the entire category of adjustment disorders was put under "other mental disorders". As a result, this "other" group in the 1981 Census has a much larger number of persons under 18 than other categories.

F. For some states, the data presented in this report may differ from the data given in official state publications due to differences in definitions used by state programs and those used by NIMH.

G. There is no capacity to do patient-based cross-tabular analyses because only total counts are available.

EXAMPLES OF PUBLISHED DATA

A. Estimated total additions to state and county mental hospitals by mental disorder and age, 1982, state summary. (See publication A.)

B. Estimated total of additions to state and county mental hospitals by mental disorder and age, 1982, national summary. (See publication A.)

C. Estimated resident patients in state and county mental hospitals by mental disorder and age, state summary, 1982. (See publication A.)

SELECTED PUBLICATIONS

A. Additions and Resident Patients at End of Year, State and County Mental Hospitals, by Age and Diagnosis by State, United States, 1982. Statistical Note No. 1, Series MR, Rockville: National Institute of Mental Health. (This has been published annually since 1977.)

B. Taube, C and Barrett, S (eds): Mental Health, United States 1985. Rockville: National Institute of Mental Health, DHHS Pub. No. (ADM) 85-1378, 1985.

-- FOR ANNUAL SUMMARY, SEE PAGE 47 --

AREA RESOURCE FILE (ARF) - #2

SPONSOR

Health Resources and Services Administration, DHHS

PURPOSE

The ARF System is a computerized data system consolidating over 7,000 health professions and health resources statistics from several sources into a single file or linkable files. ARF provides current and compatible information to facilitate analysis and planning of health professions' supply, utilization, requirements, costs and related issues. Originally designed as a general purpose data file for analysis of geographic distribution of health resources, it now contains a wide range of health and socioeconomic data for health systems research, analysis and planning. Data are retrievable by county or county groupings as well as by a number of defined geographic areas. The ARF System consists of four major subsystems with various capabilities, described below under Content Summary.

SURVEY DESIGN

The ARF system is a compilation of data drawn from over 75 primary data sources, including numerous national surveys completed by various federal agencies and professional associations. The ARF system has changed substantially since its introduction in 1971. Special enhanced files have also been included at the request of user groups.

Since 1984, the ARF has added the following major data: 1982 AMA Physician Data, 1981 Optometrist Data, 1982 Occupational Therapist Data, 1981 Nurse Practitioner Data, 1981 Mortality Data (total deaths, total deaths by cause, race, sex and age), 1981 Natality Data (total births by race and sex), 1981 Morbidity Data, 1983 AHA Hospital Data (number of hospitals, number of beds, short-term general hospital facilities by number of services, total hospital expenditures, short-term hospitalization by utilization, inpatient days, and utilization visits, number of hospital personnel by category, community hospital statistics), 1983 AOHA Hospital Data (number of osteopathic hospitals, hospital beds, inpatient days, and outpatient visits), 1983 HMO data (number of HMOs, HMO membership, number of

federally qualified HMOs and HMO federally qualified membership), 1983 County and City Data Book.

KEY WORDS

Diagnosis (classification); emergency service, hospital (utilization); expenditures, health; fertility; fetal death; financing, government; health facilities; health manpower; health occupations; health services accessibility; hospitalization; infant mortality, morbidity; mortality; nursing home (utilization); outpatient clinics (utilization); professional practice; specialties.

CONTENT SUMMARY

ARF is made up of four subsystems as follows:

1. Basic ARF County File is the county basic county data base with over 6,000 variables. The data items collected are:

   A. **Demographics** information includes population totals, sex, race, foreign stock, households, families, income, poverty level, education, employment status, occupation, veteran status, geographic area, and public assistance status.

   B. **Risk Factor** data includes presence of fluoridated water.

   C. **Health Status** data include mortality, morbidity, and natality.

   D. **Health Services Utilization** information includes the number of hospital discharges, days of care, Medicaid admissions and days, outpatient visits, operations, nursing home residents, and HMO membership.

   E. **Delivery System Characteristics** information includes the number of hospitals, beds, bassinets; types of hospital facilities and services; the number of nursing homes; the number of federally qualified and all HMOs; the number of physicians and physician specialists; the number of other health professionals; the number of health professions training schools.

2. State/National Timeseries Database contains some of the basic ARF data detailed above in 1 as well as numerous sources available only at the state/national level. The data in this subsystem focus on health professions and physician specialties for every year beginning in 1950 through 1980.

3. ACCESS Subsystems are the user-oriented subsystems for the Basic ARF County File (listed above in 1) and the Timeseries Data Base (listed above in 2). These subsystems are designed so that users unfamiliar with data processing can retrieve, process and display data. It can produce analytic reports on every variable obtained on ARF. Capabilities include: defining and calculating new variables (e.g., MDs per 100,000), calculating rates and other quotients, ranking counties, and selecting counties according to user-defined selection criteria.

4. Other System Components greatly enhance and expand the capabilities of the system. They are as follows:

   A. Hospital Files contain information on all hospitals responding to the annual American Hospital Association (AHA) survey. Data pertain to hospital utilization, services, facilities, financing and personnel. These timeseries files are restricted in use. The two levels of files are:

      - Facility-level hospital file
      - County-level hospital file

   B. ARF Support Files contain more detailed longitudinal and/or timeseries data on a specific subject area. Some of these files are restricted in use.

   C. Data Dictionary/Directory System (DD/DS) is a central repository for information about data available in the system. This information includes data element definitions, locations and key attributes, information on subsystems, files, reports, etc. The DD/DS System is currently under development and not yet available to the public.

D. Graphing/Mapping Capabilities include graphs, maps, bar graphs and charts that can be generated from the ARF data.

CHILD POPULATION SURVEYED

NA

FREQUENCY

Updating of the ARF system is done on a quarterly basis as data are available from the primary sources. The most current data are available for 1985.

AVAILABILITY

ARF data are available by region, state, county and SMSA. The following computer tapes and reports are available from the National Technical Information Service (tapes are sent to NTIS twice a year):

- ARF Computer Tape (includes technical and user documentation) at $140.00 each.
- ARF Documentation Computer Tape (includes technical and user documentation and COBOL and PL/1 File Descriptions) at $140.00 each.
- Hardcopy ARF Technical and User Documentation at $15.00 per set.
- Standardized State Reports are available in paper or microfiche. There are 104 separate reports in two volumes available for each State. The "Selected Geographic Resources" series is a summary of important measures related to health care delivery for the State and its counties. The "Geographic Trends in Resources" series has time-series trend tables for health professions' supply, population and vital statistics, and health facilities for the state and its counties. Prices are available from NTIS.
- In some cases, microcomputer files will be available for major subsets of data in early 1986. Special computer programs tailored to specific data needs may be obtained.

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TOPIC AREAS Basic ARF County File (1)

1. **Demographics**

   A. Age

   B. Sex

   C. Race (While, Black, American Indian, other)

   D. Foreign stock (Spanish, Scandinavian, French, Italian, German, Irish, United Kingdom, Mexican, Cuban, Puerto Rican, Japanese, Chinese, Eastern European, other foreign stock)

   E. Geographic area (county, state, federal region, SMSA, HSA, PSRO area. State Economic Area V and Economic Subregions, Area Health Education Centers, Major and Minor Trading Areas, VA Service Areas, Medicare Prevailing Charges Locality Codes). In addition, each county record has codes which indicate the state in which the county is located, the metropolitan/nonmetropolitan nature of the county, its population size and its physical location relative to other counties.

   F. Household composition (persons per household, number with female head)

   G. Persons in group quarters

   H. Families (by race, income range)

I. Income (median family, per capita, personal)

J. Education

K. Employment status

L. Occupation

M. Veteran status

N. Public assistance status

2. **Risk Factors**

A. Fluoridated Water

3. **Health Status**

A. Mortality

i. Age
   a. Fetal (20 or more weeks gestation)
   b. Infant (<1 day, 1-6 days, 7-27 days, number and 5-year rate)
   c. Other (1-4, 5-14, 15-24, etc.)

B. Cause (infective and parasitic disease; malignant neoplasms; ischemic heart disease; other cardiovascular; influenza and pneumonia; bronchitis, emphysema, asthma; cirrhosis of liver; motor vehicle accidents; other external causes; suicide, homicide, other causes.

C. Morbidity

i. Incidence by type of disease (amebiasis; aseptic meningitis; chicken pox; hepatitis A, B, unspecified; measles; mumps; rubella; salmonellosis; shigellosis)

D. Natality and Fertility

i. Births (total, number in hospital, number to teenagers)
ii. Teenage fertility rate

4. **Severity of Illness** NA

5. **Health Services Utilization**

A. Hospitalization

i. Medical hospital admissions
ii. Hospital days of care
iii. Hospital discharges (by hospital unit, e.g. neonatal ICU, pediatric ICU, long-term skilled nursing, mentally retarded, rehabilitation).
iv. Nursing home (number of residents)

B. Hospital outpatient visits (regular, emergency, total inpatient)

C. Home care visits

D. Nursing Home (number of residents)

6. **Delivery System Characteristics**

A. Health services location

B. Hospitals (number)

C. Hospital beds (by hospital unit)

D. Newborn bassinets (number)

E. Type of hospital: short-term general; short-term non-general; short-term community type; short-term general osteopathic; long-term; VA.

i. Hospital facilities and services (82 categories including ambulatory pediatric: ambulatory multi-specialty; day hospital services; genetic counseling; hemodialysis; home care program; intravenous admitting service; neonatal ICU; premature nursery; organ transplant; speech therapy service)

F. Nursing homes (number)

G. HMOs (number of federally qualified, all)

H. Physicians (by specialty, professional activity, sex, age, board certification)

I. Other health professionals (number of D.O.s, dentists; dental hygienists, assistants, lab technicians; veterinarians; pharmacists; optometrists; podiatrists; RNs, LPNs, P.A.s; nurse practitioners; dieticians; inhalation therapists; occupational ther-

apists; physical therapists; lab technicians; other)

J. Health manpower shortage area (number of primary care physicians, dentists, pharmacists, optometrists, podiatrists)

K. Health professions training schools (number, enrollment)

7. **Health Care Expenditures**

A. Hospitals reporting expenses by type

B. Hospitals reporting total equipment capital expenditures

C. Capital expenditures

D. Total payroll expenses

E. Total nonpayroll expenses

F. Per capita local government health and hospital expenditures

G. County government hospital expenditures

H. County government health expenditures

I. Local government direct expenditures

J. County government hospital salary and wage expenditures

K. Medicare: total, average and per capita reimbursements

L. Medicare prevailing charges

M. Medicare and Medicaid hospital inpatient days

8. **Source of Payment/Health Care Expenditures** NA

9. **Other Special Features** NA

STRENGTHS FOR CHRONICALLY ILL CHILDREN

A. ARF provides a comprehensive data base for health resources information including extensive information on health manpower and facilities. Also, there are many data elements pertaining to socioeconomic factors.

B. Data are available for all areas of the country and can be aggregated to a number of levels including state and (P)MSA. Also contiguous counties can be determined.

C. Longitudinal files allow for comparison of data for various years. Enhanced files allow users to tailor reports to their needs.

D. The ACCESS subsystem is designed to allow users unfamiliar with data processing to retrieve, process and display data relatively quickly.

E. A number of data elements are age-specific to include children, e.g. information on population, children below the poverty level, mortality, natality, and pediatric units and patients in hospitals.

F. The file is maintained quarterly to ensure that the most current data are available.

WEAKNESSES FOR CHRONICALLY ILL CHILDREN

A. No information is available on severity of illness and source of payment/health insurance coverage, and limited information is collected on health status, risk factors, and health expenditures.

B. Morbidity data are limited to those diseases reported to the CDC.

C. Data regarding the cause of death is not age-specific and includes only the ten leading causes of death.

D. ARF is a compilation of data from a number of sources, so the years for which the data are available vary widely.

EXAMPLES OF PUBLISHED DATA

(Contact agency for published data.)

SELECTED PUBLICATIONS

A. The Area Resource File (ARF) System. Information for Health Resources Planning and Research. HRS-P-OD-84-6, Rockville: Bureau of Health Professions, May 1984.

B. The Area Resource File (ARF). A Health Professions Planning and Research Tool. Rockville: Bureau of Health Professions, DHHS Publication No. (HRA) 81-9, November 1980.

-- FOR ARF SUMMARY, SEE PAGE 48 --

BIRTH DEFECTS MONITORING PROGRAM (BDMP) - #3

SPONSOR

Centers for Disease Control, DHHS

PURPOSE

The purpose of the BDMP is to monitor the incidence of birth defects and other newborn conditions that require further epidemiological investigations.

SURVEY DESIGN

This annual nationwide program has monitored one-third of the births in the United States since 1970. Using the resources of the Commission on Professional and Hospital Activities (CPHA), a non-profit data processing organization, hospital discharge data are compiled from approximately 1,600 hospitals using the PAS system of medical auditing. The PAS hospital medical records staff prepares a case abstract for every patient discharge that includes pertinent data such as diagnosis and surgical procedures. The survey size in 1980 was 955 hospitals or 21% of live births. This self-selected sample includes middle-size hospitals.

KEY WORDS

Abnormalities (congenital); birth injuries; birth weight; diagnosis (classification), diagnostic tests, routine; hospitalization; surgery-operative.

CONTENT SUMMARY

1. **Demographic** information is collected on age, birth weight, race, sex, zip code, county and state.

2. **Risk Factors** NA

3. **Health Status** information is collected on the admission and principal diagnosis (up to 7 ICD-9-CM diagnoses), birth weight, discharge status, and disposition of patient. The CDC classifies these diagnoses into major classifications of congenital malformations.

4. **Severity of Illness** NA

5. **Health Services Utilization** information is collected on the total number of hospital days between birth and discharge.

6. **Delivery System Characteristics** NA

7. **Health Care Expenditures** NA

8. **Source of Payment/Health Insurance Coverage** NA

9. **Other Special Features** NA

CHILD POPULATION SURVEYED
========

In 1980, approximately 21% of all live births were sampled.

FREQUENCY
=========

The BDMP has collected the CPHA data in quarterly cycles since 1970.

AVAILABILITY
============

User tapes are not available. They are the domain of the CDC. Annual surveillance reports have been published. The most current year is 1985.

CONTACT
=======

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Birth Defects Branch and Genetic Diseases Branch
Division of Birth Defects and
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Center for Environmental Health
Centers for Disease Control
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(404) 452-4035

TOPIC AREAS
===========

1. **Demographics and Risk Factors**

   A. Age

   B. Race (White, Black, Asian, American Indian, Hispanic, other)

   C. Sex

   D. Region (region, SMSA, county, state, zip code)

2. **Risk Factors** NA

3. **Health Status**

   A. Diagnoses (admission, principal, up to 30 listed ICD-9-CM congenital malformation diagnoses and an extensive BDMP coding list)

   B. Birth weight

C. Discharge status: live born, stillborn, died, died-autopsy, transferred.

4. **Severity of Illness** NA

5. **Health Services Utilization**

A. Hospitalization

i. Number of hospital days
ii. Principal procedure coded to ICD-9-CM
iii. Attending physician

6. **Delivery System Characteristics** NA

7. **Health Care Expenditures** NA

8. **Source of Payment/Health Insurance Coverage** NA

9. **Other Special Features** NA

STRENGTHS FOR CHRONICALLY ILL CHILDREN

A. Extensive hospital utilization information by diagnosis coded for birth defects surveillance.

B. Information is collected quarterly and as such is very current.

WEAKNESSES FOR CHRONICALLY ILL CHILDREN

A. Risk factors, severity of illness, delivery system characteristics, health expenditures, and source of payment/health insurance information is not included in the BDMP coding or analysis of the CPHA data.

B. No public use data tapes are available except, at significant expense, through CPHA.

C. Very limited analyses of these data have been published.

D. This CPHA sample of hospitals is not nationally representative.

EXAMPLES OF PUBLISHED DATA

(For information, contact CDC.)

SELECTED PUBLICATIONS

A. Miller, J: Birth Defects Monitoring Systems: Overview. Congenital Abnormalities. 17: 1-12, 1977.

B. Edmonds, L, Layde, P, James, L, Flint, J, Erickson, J and Oakley, G: Congenital Malformation Surveillance. International Journal of Epidemiology. 10:3, 1981.

C. Centers for Disease Control: Congenital Malformations Surveillance Report. January-December 1980. February 1982.

D. Oakley, G: Incidence and Epidemiology of Birth Defects. in Kaback, M (ed): Genetic Issues in Pediatric and Obstetric Practice. Chicago: Yearbook Medical Publishers, 1981, 25-43.

-- FOR BDMP SUMMARY, SEE PAGE 50 --

CENSUS OF PERSONS IN INSTITUTIONS AND OTHER GROUP QUARTERS (Census) - #4

SPONSOR

Bureau of Census, Department of Commerce

PURPOSE

As part of the 1980 Census of Population, this sample survey presents national and state sample data on characteristics of the population under care or custody in institutions and of the noninstitutional population residing in group quarters.

SURVEY DESIGN

This census of institutionalized persons is conducted primarily by self-enumeration in a survey format through special questionnaires distributed at the institutions to persons 15 and over who fill them out and return them to Census personnel. In institutions with children less than 15 years, Census staff fill out the questionnaires by directly interviewing the children. When more information is needed, they consult administrative records. These 1980 Census data are based on a sample of institutions and persons in institutions. In counties, incorporated places, and minor civil divisions estimated to have fewer than 2,500 persons, one-half of all persons in group quarters were included. In other areas one-sixth of the persons in group quarters were sampled.

The 1980 data on Spanish origin are not directly comparable to 1970 Census data because of the large increase of Hispanics in the 1980 Census survey. This increase was due to better coverage of the population, improved question design, and a public relations campaign by the Bureau of Census. (The question on Spanish origin was asked of only five percent of the population in 1970; in the 1980 Census, it was asked of everyone in the Nation.)

The 1990 Census will be the same as the 1980 except that more emphasis will be placed on collecting data on runaway children and the homeless population.

KEY WORDS

Activities of daily living; chronic disease; disability evaluation; health facilities; hospitalization; mental disorders; mental health services (utilization); ownership (hospital).

CONTENT

1. **Demographic** information is collected on patient's age, sex, race and ethnicity, marital status, residence in 1975, place of birth, education, income (collected on persons 15 and over), occupation, and public assistance status.

2. **Risk Factors** NA

3. **Health Status** NA

4. **Severity of Illness** information includes work disability and public transportation disability status for persons 16 and over (see 2.3.2 for definition of public transportation disability).

5. **Health Services Utilization** information includes the number of persons in a variety of institutional and group quarter settings.

6. **Delivery System Characteristics** information includes type of institutionalized control and type of hospitals or institutions: mental (psychiatric) hospitals, residential treatment centers, tuberculosis hospitals, chronic disease hospitals, homes for the aged, homes and schools for the mentally handicapped, homes and schools for the physically handicapped, homes for dependent and neglected children, correctional institutions, and homes for unwed mothers. Information on type of institutional control is available for all of the above sites except for residential treatment centers, chronic disease hospitals, and homes for unwed mothers.

7. **Health Care Expenditures** NA

8. **Source of Payment/Health Insurance Coverage** NA

9. **Other Special Features** NA

CHILD POPULATION SURVEYED

Children and youth under 5, 5-9, 10-14, 15-19, 20-24 are included in published reports. Individual years are available in the public data tape for homes for dependent and neglected children, unwed mothers, training schools for juvenile delinquents, and detention homes. Excluding all prisons and other juvenile detention homes, 5.5% or 107,905 were children under 18, out of the sample population of 1,966,372.

FREQUENCY
==========

As part of the Census of Population, this sample survey has been conducted every ten years since 1950. Prior to 1950, data on characteristics of the population under care or custody in institutions and the noninstitutional population residing in group quarters were published as part of the total population and their characteristics.

AVAILABILITY
============

The latest data tapes are available for 1984, ranging in price from $140 for a .1% national sample to $14,140 for a 5% national sample.

CONTACT
=======

Jack McNeil
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Bureau of Census
U.S. Dept. of Commerce
14th St. bet. E St. and
Constitution Ave., N.W.
Washington, D.C. 20233
(202) 763-7946

TOPIC AREAS
===========

1. **Demographics and Risk Factors**

   A. Age

   B. Sex

   C. Race (White, Black, American Indian, Eskimo, Aleut, Asian and Pacific Islander)

   D. Ethnicity (Spanish origin - Mexican, Puerto Rican, Cuban, Other Spanish)

   E. Marital Status

   F. Residence (urban/rural, region, SMSA, county, place, township, state residence in 1975)

   G. Education

      i. School enrollment - enrolled or not enrolled
      ii. Years of school completed

   H. Place of birth

      i. Residence since 1975

   J. Income (collected on persons 15 years and over)

K. Occupation and industry (16 and over)

l. Public assistance status

2. **Risk Factors** NA

3. **Health Status** NA

4. **Severity of Illness**

A. Work disability status for persons 16-64 years of age includes those people identified as having a health condition which lasted 6 or more months and which limited the kind or amount of work they could do at a job, or who were restricted in the kinds of jobs at which they were able to work or if they were unable to work at a full-time job. "Prevented from working" or "not prevented from working" because of the health condition is also included. (Health condition refers to both physical and mental conditions.)

B. Public transportation disability for persons 16-64 and 65 and over refers to a health condition which lasted 6 or more months and which made it difficult or impossible to use busses, trains, subways, or other forms of public transportation. (Will not be included in next survey)

5. **Health Services Utilization**

A. The number of persons in institutional and group quarter settings.

6. **Delivery System Characteristics**

A. Type of facility

i. Mental (psychiatric) hospital includes those patients receiving care in mental hospitals, in psychiatric wards or services of general hospitals and veterans' hospitals, alcoholic treatment and drug addiction centers.

- Type of Control: federal hospitals; state, county, city hospitals; and private hospitals, including proprietary and non-profit establishments

ii. Residential Treatment Center includes institutions which primarily serve children who, by clinical diagnosis, are moderately or seriously disturbed emotionally. These RTCs provide treatment services usually supervised or directed by a psychiatrist. (When not shown separately in the tables, they are included with private mental

hospitals, and residential treatment centers.)

iii. Tuberculosis hospitals include hospitals primarily devoted to treatment of tuberculosis, tuberculosis wards or services of general hospitals and veterans hospitals.

- Type of control includes federal, state, county, city and private hospitals

iv. Chronic Disease Hospitals, except tuberculosis and mental, include hospitals for chronic disease and chronic disease wards or services of general hospitals and Veterans hospitals.

v. Homes for the Aged includes places where the majority of persons are elderly but may include persons who are economically dependent or who require nursing care because of a chronic or physical condition regardless of age. These homes are categorized by presence of nursing care.

vi. Homes and schools for the mentally handicapped are those institutions which primarily provide care for mentally handicapped. Homes and schools which combine treatment of the physically handicapped with treatment of the mentally handicapped are considered to fall in the latter category.

- Type of control includes public homes and schools (vast majority are operated by state agencies) and private homes and schools.

vii. Homes and schools for the physically handicapped include those for the blind, deaf, and other physically handicapped. (Persons with speech problems are classified with homes and schools for the deaf.) The other category includes those providing long-term care for persons suffering from poliomyelitis, cerebral palsy, muscular dystrophy and other crippling diseases.

- Type of control is classified as public or private.

viii. Homes for dependent and neglected children include orphanages and other institutions which provide long-term care for children. It also covers institutions generally known as receiving homes or shelters which provide temporary care primarily to dependent or neglected children whose homes have been broken by illness, desertion, death, or other social crises.

- Type of control is public or private

ix. Homes for unwed mothers include institutions which provide domiciliary care for unwed mothers and their children. Social services and medical care (prenatal, delivery and postnatal care) within the institution are provided or these services are arranged for in the community. Nursing services are usually available in the institution.

7. **Health Care Expenditures** NA

8. **Source of Payment/Health Insurance Coverage** NA

9. **Other Special Features** NA

STRENGTHS FOR CHRONICALLY ILL CHILDREN

A. Provides national, state, county, and SMSA estimates on the number of children in various health-related institutional settings and group quarters that include but are not limited to homes and school for the physically and mentally handicapped and residential treatment centers.

WEAKNESSES FOR CHRONICALLY ILL CHILDREN

A. No risk factor, health status, health services utilization, expenditure, or source of payment/health insurance coverage data are collected.

B. The lack of diagnostic data precludes any linking with disability data to determine the cause of the health disability and the reason for institutional or group care.

C. There is no capacity to do population-based analysis because only total counts are available.

D. There are no age breakdowns for the health-related disability data.

EXAMPLES OF PUBLISHED DATA

A. Selected characteristics[1] of persons receiving care in homes for the aged by type of control of home: 1980, United States. (Age breakdown includes <15, 15-24.) (See publication listed below under A.)

B. Selected characteristics[1] of patients in mental (psychiatric) hospitals by type of control and residential treatment centers: 1980, United States. (Age breakdown includes under 5, 5-9, 10-14, 15-19, 20-24.) (See publication listed below under A.)

C. Selected characteristics[1] of patients in tuberculosis hospitals by type of control of hospital and in chronic disease hospitals (except tuberculosis and mental): 1980, United States. (Age breakdown includes under 5, 5-9, 10-14, 15-19, 20-24.) (See publication listed below under A.)

D. Selected characteristics[1] of persons receiving care in homes and schools for the mentally handicapped by type of control of home or school: 1980, United States. (Age breakdown includes under 5, 5-6, 7-9, 10-14, 15-17, 18 and 19, 20-24) (See publication listed below under A.)

E. Selected characteristics[1] of persons receiving care in homes and schools for the physically handicapped by type of control of home or school: 1980, United States. (Age breakdown includes under 5, 5-6, 7-9, 10-14, 15-17, 18 and 19. 20-24 or under 10, 10-14, 15-24.) (See publication listed below under A.)

F. Selected characteristics[1] of persons receiving care in homes for dependent and neglected children by type of control of home, and in homes for unwed mothers: 1980, United States. (Age breakdown includes single years to 19 or under 5, 5-9, 10-14, 15-17, 18-24.) (See publication listed below under A.)

SELECTED PUBLICATIONS
=====================

A. Persons in Institutions and Other Group Quarters. 1980 Census Population. Volume 2, Subject Reports, Washington, D.C.: Bureau of Census, PC 80-2-4D.

B. 1980 Census of Population and Housing User's Guide. Part A. Text, Part B. Glossary, Part C. Index to Summary Tape Files 1-4, Washington, D.C.: Government Printing Office.

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[1] Selected characteristics include age, sex, race, Hispanic origin, inside/outside SMSAs, marital status, nativity and place of birth, residence in 1975, years of school completed, occupation (16 years and over), disability status includes work disability, prevented from working (persons 16-64 and 65+), and public transportation disability (16-64 and over 65).

-- FOR CENSUS SUMMARY, SEE PAGE 51 --

CHILD HEALTH SUPPLEMENT (CHS) #5

SPONSOR

National Center for Health Statistics, DHHS

PURPOSE

The Child Health Supplement is a one-time national household survey of children from birth through 17, from the 50 states and the District of Columbia. It was designed to supplement the National Health Interview Survey (NHIS) to provide a comprehensive set of descriptive statistics on the health status of children and the correlates of health.

SURVEY DESIGN

As a component of the NHIS, it has the same survey design. Additional information was gathered for one eligible child ages 0-17 in each family. In families having more than one eligible child, one was selected at random. A knowledgeable adult member of the household, usually the biological mother, served as the respondent for each selected child. As with the core survey, interviewing was conducted continuously throughout the year. For more information on the CHS survey design, see Publication by Poe.

KEY WORDS

Abnormalities (congenital); activities of daily living; acute disease; ambulatory care (utilization); behavior disorders (child); birth injuries; birth weight; development (child); chronic disease; delivery; diagnosis (classification); disability evaluation; drugs (prescription); drugs, nonprescription; fetal death; gestational age; health manpower (utilization); hospitalization; infant premature; labor complications; motor skills; nutrition; personality development; pregnancy; pregnancy complications; prenatal care; signs and symptoms; smoking; social adjustment; surgery, operative; substance use disorders.

CONTENT SUMMARY

1. **Demographic** information is collected on age, sex, race and ethnicity, family income, marital status, family size and birth order, parents' relationship to child, child care arrangements, school status.

2. **Risk Factor** information is collected on risk behavior during pregnancy, LBW risk factors, infant feeding practices (including breastfeeding), sleep habits, and use of seat belts.

3. **Health Status** information covers early childhood motor and social development, behavior problems, prevalence and history of chronic disease and impairments, incidence of acute disease, weight status and condition of eyes and teeth, and prenatal and birth events.

4. **Severity of Illness** information covers school disability and pregnancy disability.

5. **Health Services Utilization** information is collected on use of prenatal care, hospitalization, surgery, selected mental health therapists, and prescriptions and over-the counter medications.

6. **Delivery System Characteristics** NA

7. **Health Care Expenditures** NA

8. **Source of Payment/Health Insurance Coverage** NA

9. **Other Special Features** includes information on the social effects of health problems or disability, including needs of family to change home, job stability of parents, marital stability, economic problems, and specific changes made in lifestyle.

CHILD POPULATION SURVEYED

15,416 children under the age of 18 were surveyed.

FREQUENCY

One-time survey conducted in 1981.

AVAILABILITY

Data are currently available in public use tape form only. Tapes can be purchased from NCHS at $160.

CONTACT

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Division of Health Interview Statistics
National Center for Health Statistics
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(301) 436-7089

TOPIC AREAS

1. **Demographics**

   A. Age

   B. Sex

   C. Race (White, Black, Other)

   D. National Origin (Puerto Rican, Cuban, Mexican American, Other Spanish)

   E. Family income

   F. Marital status

   G. Parents' relationship to child (biological, adoptive, step or foster parent)

      i. Child's relationship with mother and father -- living with or visiting (including amount of time)

   H. Size of family and child's birth order

   I. Geographic area (region, SMSA)

   J. Child care arrangements

      i. Child's caretakers
         a. Related or unrelated
         b. Care in child's home or other place
         c. Caretaker who takes child to physician for check-ups or non-emergency care

   K. School status, including suspensions, exclusions, expulsions, or problems

2. **Risk Factors**

   A. Risk behavior during pregnancy (see below under health status for more detail under prenatal event)

   B. LBW risk factors (see below under health status for more detail under prenatal and birth events)

   C. Smoking

   D. Infant feeding (including breastfeeding) practices

   E. Sleep habits of child (including amount of sleep, naps, and sharing sleeping quarters)

F. Use of seat belts

3. **Health Status**

A. Motor and social development for children 4 and under -- 52 questions asked

B. Behavior problems

C. Bed wetting

D. Thumbsucking

E. Runs away

F. Anyone suggested child needs help for behavior problem(s)

i. Behavior Problems Index --32 questions asked)

G. Weight status and condition of eyes and teeth

H. Incidence of acute conditions

I. Prevalence and history of chronic illness and impairments (current or ever)

i. Status of condition: still present, under control, cured (4 conditions listed)

J. Prenatal Event

i. Weight gain/loss during pregnancy
ii. Length of pregnancy
iii. Conditions during pregnancy
iv. Smoking during pregnancy
v. Tranquilizer use during pregnancy
vi. Miscarriage(s)

K. Birth event

i. Age of mother and father
ii. Birth weight
iii. Gestational age
iv. Length of labor
v. Type of delivery
vi. Delivery complications
vii. Birth conditions
viii. Circumcision

4. **Severity of Illness** (see National Health Interview Survey)

   A. School disability/limitation of activity

      i. Child's ability to go to school
      ii. Child requiring a certain type of school
      iii. Child's limitation in school attendance
      iv. Child attending or needing to attend a special class or getting special help in school because of disability or health problem

   B. Pregnancy disability

      i. Recommendation for bed rest during pregnancy (including condition(s) and number of bed disability days)

5. **Health Services Utilization**

   A. Hospitalization

      i. Pregnancy-related (not including birth)
         a. Length of stay
      ii. Child born in hospital
         a. Length of stay
      iii. Number of hospitalizations since child was born
         a. Number and type of surgery/operations performed during hospitalization

   B. Prenatal Care

      i. Month/week prenatal care began

   C. Mental Health Therapist

      i. Child ever seen psychiatrist, psychologist, or psychoanalyst for any emotional, mental or behavioral problem.
         a. Still seeing the above mental health therapists
         b. Last visit

   D. Prescription and Over-the Counter Medications

      i. Frequency and type of medication used (10 medication categories)
         a. Health condition medication needed for (acute or chronic illness)
         b. Taken on advice of doctor
      ii. Medications used during labor and delivery
      iii. Use of medicines or drugs to help control child's activity or behavior.

6. **Delivery System Characteristics** NA

7. **Health Care Expenditures** NA

8. **Source of Payment/Health Insurance Coverage** NA

9. **Other Special Features**

   A. Impact of health problem/social effects of child's health problem or disability

      i. Health problem of child
      ii. Family mobility --if family moved to different home
         a. If family moved because of child's health, was it to be nearer to special services that were needed, economics, or other reasons
      iii. Job stability -- ability to take a job, need to quit or change job, forced to take job not wanted
      iv. Family stability -- if family member left home
      v. Marital stability -- divorced or separated
      vi. Economic problems -- difficulty in making ends meet, need to move from home
      vii. Other changes made in lifestyle of family members

STRENGTHS FOR CHRONICALLY ILL CHILDREN

A. Detailed information is available on the impact of a child's condition on the family.

B. Extensive information on early childhood social and motor development, behavioral problems for children as well as on prenatal and birth events is available.

C. Data collected on the CHS can also be linked to the core NHIS. Additional individual data on children and background data on the family are available using the data tapes.

D. Some of the CHS data elements can be compared to NHANES II and III.

WEAKNESSES FOR CHRONICALLY ILL CHILDREN

A. No information was collected in either the CHS or the NHIS on health care expenditures.

B. There are a limited number of children with low prevalence and high severity conditions for analysis.

C. As a one-time supplemental survey, the analysis of the data will be limited. No trend analysis or longitudinal analysis is possible.

EXAMPLES OF PUBLISHED DATA

(See publications listed below for additional tables.)

A. Type of medications and vitamin-mineral supplements used by children and youths under age 18 during a 2-week period, by age group, U.S., 1981. (See publication listed below under B.)

SELECTED PUBLICATIONS

A. Poe, G: Design and Procedures for the 1981 Child Health Supplement to the National Health Interview Survey. NCHS Working Paper, 1986.

B. Kovar, MG: Use of Medications and Vitamin-Mineral Supplements by Children and Youth. Public Health Reports. Vol. 100, No. 5, September/October 1985.

C. Moss, A: Prenatal Smoking and Childhood Morbidity. Paper presented at the International Conference on Maternal Smoking and Reproduction, San Francisco, October 1985. (For copies, write NCHS.)

D. Overpeck, M, et al: Health Status of Low Birthweight Children in the United States, 1981. Paper presented at the American Public Health Association Annual Meeting, Washington, D.C., November 1985.(For copies, write NICHD.)

E. Zill, N: Behavior and Learning Problems among Adopted Children: Findings from a United States National Survey of Child Health. Paper presented at the Biennial Meeting of the Society for Research in Child Development, Toronto, Canada, April 1985. (For copies, write Child Trends, Inc., 1990 M St., N.W., Suite 600, Washington, D.C. 20036.)

F. Zill, N: Behavior Problems and Use of Mental Health Services among Children and Adolescents in Step Families: Findings from a United States National Survey of Child Health. Paper presented at the NICHD Conference on the Impact of Divorce, Single Parenting and Step-Parenting on Children, Bethesda, May 1985.

-- FOR CHS SUMMARY, SEE PAGE 52 --

CONSUMER EXPENDITURE SURVEY (CES) - #6

SPONSOR

Bureau of Labor Statistics, Department of Labor

PURPOSE

The CES collects data on consumer expenditures for goods and services used in day-to-day living and provides information on the amount and sources of family income, changes in savings and debts, and major demographic and economic characteristics of family members. Consumer expenditures are based on the consumer unit which is not necessarily the same as a family. The consumer unit is defined as (1) members of a particular housing unit who are related by blood, marriage, adoption, or some other legal arrangement, such as foster children; and (2) a person who is financially independent, living alone or sharing a household with others. The main objectives of the CES are to provide the basis for revising the weights and associated pricing samples for the Consumer Price Index and to meet the need for timely and detailed information on consumption patterns of different kinds of consumer units. The ongoing survey consists of two separate surveys, each with a different data collection technique and sample. In the Interview Panel Survey, conducted quarterly, expenses reported include relatively large items such as property, automobiles, or major appliances, or expenses which occur on a fairly regular basis, i.e., rent, utility bills, or insurance premiums. The Diary Survey data are collected on small, frequently purchased items which are normally difficult to recall, i.e., food and beverages, nonprescription drugs.

SURVEY DESIGN

The CES is a national probability sample of households designed to represent the total civilian noninstitutionalized population. The sampling frame for this survey is generated from the 1970 census file. The annual sample size for both the Interview Survey and the Diary Survey is approximately 4,800. In the Interview Survey each consumer unit (CU) in the sample is interviewed every 3 months over five calendar quarters. In the Diary Survey the consumer unit respondent keeps a detailed description of all expenses for two consecutive 1-week periods.

KEY WORDS

Expenditures, health; fees and charges; financing, government; insurance, health.

CONTENT SUMMARY

1. **Demographic** information is collected on age, sex, race and ethnicity, geographic area, employment status, income (for head of CU only), marital status, family size and composition, education and public assistance status.

2. **Risk Factors** NA

3. **Health Status** NA

4. **Severity of Illness** NA

5. **Health Services Utilization** NA

6. **Delivery System Characteristics** NA

7. **Health Care Expenditures** information includes payment by CU for medical services including inpatient hospital services, hospital room, physician's services, service of practitioners other than physicians, eye care, dental care, medications and medical supplies. It also includes insurance premiums, emplcyer/ union/other contributions to premiums, and the consumer unit's out-of-pocket payment.

8. **Source of Payment/Health Insurance Coverage** information includes third party payer and type of plan.

9. **Other Special Features** NA

CHILD POPULATION SURVEYED

CES' published data provide the average number of children in each consumer unit using the following age breakdowns: oldest child under 6; oldest child 6-17; oldest child 18 or over; in one parent families, at least one child under 18.

FREQUENCY

The survey was first initiated in 1888-91 and was continued in 1901, 1917-19, 1935-36, 1950, 1960-61 and 1972-73. The new ongoing survey, initiated in late 1979, has been repeated annually.

AVAILABILITY

Public use data tapes are made available a few months after a summary publication is disseminated. The price for the Interview Survey public use tape ranges from $130 to $230; the price of the Diary Survey ranges from $105 to $130. The 1984 public use data tape on expenditures that includes detailed information on medical expenditures and source of payment for consumer units will not be available until 1987. These tapes can be ordered

from the Contact listed below. The most current data are available for 1985.

CONTACT

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Bureau of Labor Statistics
Division of Consumer Expenditures Studies
Department of Labor
600 E Street, N.W. Room 4216
Washington, D.C. 20212
(202)272-5060

TOPIC AREAS

1. **Demographics**
   - A. Age (for head of CU only)
   - B. Sex
   - C. Race (White, Black and Other)
   - D. National origin includes Hispanic origin (on data tape only)
   - E. Geographic area (region, SMSA, PSU)
   - F. Family size and composition
   - G. Marital status
   - H. Employment status
   - I. Income
   - J. Education
   - K. Public assistance status
2. **Risk Factors** NA
3. **Health Status** NA
4. **Severity of Illness** NA
5. **Health Services Utilization** NA
6. **Delivery System Characteristics** NA

7. **Health Care Expenditures**

(Data entries i-viii include items from the 1984 public use data tape on expenditures, available in 1987.)

i. Payments by CU with amount for medical services received including inpatient hospital services, hospital room, combined hospital room and services, physician's services, combined hospital care and physician's services, services of practitioners other than physicians, and dental care.

ii. Reimbursement (amounts) by third party payer for medical services received listed in section i.

iii. Payments with amount for lab tests and x-rays, care in convalescent or nursing home, nursing services and therapeutic treatments, other medical care, combined medical care services, eye care (including eye examination or surgery, purchase of eye glasses or contact lenses, combined eye care services).

iv. Reimbursement (amounts) by third party payers for medical services listed in section iii.

v. Payments for medications and medical supplies with type of service received for prescribed medicines or drugs, purchase of medical or surgical supplies and equipment, rental of medical or surgical equipment, combined medicine and medical supplies.

vi. Reimbursement (amounts) by third party payers for medications and medical supplies listed in section v.

vii. Payment for health insurance premiums

a. Payments by consumer unit for premiums with the amount
b. Payment entirely by employer or union or another group or person outside CU and amount of regular insurance payment including all payroll deductions
c. Payment of premiums by Medicaid

viii. Amount of out-of-pocket payments for the above services

8. **Source of Payment/Health Insurance Coverage**

(Data entries i-ii include items only from the 1984 public use data tape on expenditures; available in 1987.)

i. Third party payer: commercial health insurance company, health maintenance plan, commercial Medicare supplement, Medicaid, other health insurance

ii. Type of plan - number of persons covered, individual or group policy, special limited coverage (on data tape only)

9. **Other Special Features** NA

STRENGTHS FOR CHRONICALLY ILL CHILDREN

A. The CES is one of the few sources that provides annual consumer expenditure data on a range of health care services, including prescription drugs and medical supplies.

B. The data tape on expenditures from the CES will provide 1984 out-of-pocket expense data for several types of medical services received by a consumer unit including inpatient hospital services, hospital room, physician's services, services from practitioners other than physicians, lab tests, and x-rays, care in convalescent or nursing homes, eye care, and dental care.

C. The data tape on expenditures will provide source of payment data for health insurance and the type of coverage for those consumer units identified as families.

WEAKNESSES FOR CHRONICALLY ILL CHILDREN

A. The CES collects no information on risk factors, health status, severity of illness, health services utilization, and delivery system characteristics.

B. Published information provides no individual costs for family members, only for consumer units. Therefore, it is impossible to determine what portion of consumer unit expenditures go for children.

C. The public use data tape on expenditures that provides the only detailed and current expenditure data for health insurance and medical services will not be available until 1987 and will cover 1984.

D. For confidentiality purposes annual medical expenses over $200,000 per family unit are not reported but are "top coded" and shown as just under $200,000.

EXAMPLES OF PUBLISHED DATA

(The following is just a sampling of the many data tables available from the research reports listed under Publications.)

A. Selected characteristics and annual expenditures of urban consumer units for health care that includes health insurance, medical services and prescription drugs, medical supplies classified by composition of consumer unit, income before taxes, 1980-81. (See publication listed below under A.)

B. Selected characteristics (includes health care) and yearly expenditures of urban consumer units classified by composition of consumer unit (composition includes husband and wife consumer units, wife consumer units where oldest child under 6, oldest child 6-17, oldest child 18 or over, one parent with at least one child under 18), CES, 1982-83. (See publication listed below under B.)

C. Selected characteristics and average annual expenditures of urban consumer units classified by income before taxes, CES, 1982-83. (See publication listed below under B.)

SELECTED PUBLICATIONS

A. Bureau of Labor Statistics, U.S. Department of Labor: Consumer Expenditure Survey: Interview Survey, 1980-81. Bulletin 2225, April 1985.

B. Bureau of Labor Statistics, U.S. Department of Labor: Consumer Expenditure Survey Results from 1982-83. News. Sept. 27, 1985.

-- FOR CES SUMMARY, SEE PAGE 54 --

HIGH SCHOOL AND BEYOND (HS&B) - #7

SPONSOR

Center for Statistics, Department of Education

PURPOSE

The HS&B is a longitudinal survey of U.S. high school sophomores and seniors through their early adult years. It is a complex, comprehensive data base that includes a student questionnaire and cognitive tests, information from school administrators and teachers; high school and college transcripts, and other school-recorded information; survey data from parents of selected students; and data from the Bureau of the Census, the Department of Labor, and other Department of Education files. It focuses primarily on educational factors related to events in the years following high school graduation: work, post-secondary education, marriage, cohabitation, child-bearing, leisure-time behavior, values and attitudes. The survey provides a sense of how lives are shaped by the educational process and by subsequent choices.

SURVEY DESIGN

This is a two-stage highly stratified national probability sample with schools as the first stage units and students within schools as the second stage unit. The first stage of the HS&B included a national probability sample of 30,030 high school sophomores and 28,240 seniors enrolled in 1,015 public and private schools in 1980. Some schools were over-sampled to provide more students from the following groups: Hispanic (Cuban, Puerto Rican, Mexican) schools, black Catholic schools, public alternative schools, high achievement private schools, and overseas Department of Defense dependents' schools. Within each school, 36 seniors and 36 sophomores were randomly selected for the self-administered questionnaire. Data were also collected from teachers, school administrators and parents. (A subsample of about 3,500 students in each cohort was selected and information was gathered from their parents.) In the first follow-up (1982), questionnaires were sent to the members of the sophomore cohort who were still enrolled in their base year school. The senior cohort subsampled was 11,995.

HS&B is part of a larger data collection program which includes the National Longitudinal Study of the Class of 1972 (NLS-72), which interviewed 23,000 high school seniors from the class of 1972.

The same respondents have been interviewed four times since 1972, most recently in 1979, and will be interviewed again in 1986. The similarity in questions of these surveys allows for some comparisons across high school classes.

KEY WORDS

Activities of daily living; chronic disease; diagnosis (classification); disability evaluation; motor skills; personality development; quality of life; social adjustment.

CONTENT SUMMARY

1. **Demographic** information is collected on individual students' age, sex, race and ethnicity, marital status, religious background, geographic area, family income, household composition, employment status, occupation, education, and public assistance status.

2. **Risk Factor** NA

3. **Health Status** information covers prevalence of disabling conditions/functional limitations including specific learning disabilities, visual handicap, hard of hearing, deafness, speech disability, orthopedic handicap, and other health impairment

4. **Severity of Illness** information includes work and school disability and use of special programs.

5. **Health Services Utilization** NA

6. **Delivery System Characteristics** NA

7. **Health Care Expenditures** NA

8. **Source of Payment/Health Insurance Coverage** NA

9. **Other Special Features** NA

CHILD POPULATION SURVEYED

The survey included 30,030 high school sophomores (15 year olds), and 28,240 high school seniors (17 year olds).

FREQUENCY

HS&B was first conducted in 1980. Follow-up surveys were conducted in 1982 and 1984 and will be conducted every two years through 1990. A new cohort of sophomore students is planned for 1988.

AVAILABILITY
The documentation and data tapes for the 1980 and 1982 waves of the survey are available directly from the Center for Statistics, U.S. Department of Education. The most current year for which data are available is 1984.

CONTACT

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TOPIC AREAS

1. **Demographics**

   A. Age

   B. Sex

   C. Race and ethnicity (Hispanic or Spanish, American Indian or Alaskan, Native Asian or Pacific Islander, Black, White, 11 categories of European, 2 categories of Canadian and United States only)

   D. Marital status

   E. Religious background

   F. Geographic area (region)

   G. Family income

   H. Household composition

      i. Number and ages of siblings

   I. Education/School attendance

   J. Employment status

   K. Occupation

   L. Receipt and amount of public assistance includes (but is not limited to) AFDC, Social Security Benefits for Children or Retired, Disabled or Deceased Parents, Division of Vocational Rehabilitation Educational Benefits

2. **Risk Factors** NA

3. **Health Status**

   i. Prevalence of disabling conditions/functional limitations includes specific learning disability, visual handicap, hard of hearing, deafness, speech disability, orthopedic handicap, and other health impairments

4. **Severity of Illness**

   i. Work disability defined as the presence of a physical condition that limits the kind or amount of work a person can do on a job

   ii. School disability defined as the presence of a physical condition that affects the self-perceived opportunities for more education (beyond secondary schooling)

   iii. Utilization of special programs for the physically handicapped and educationally handicapped

5. **Health Services Utilization** NA

6. **Delivery System Characteristics** NA

7. **Health Care Expenditures** NA

8. **Source of Payment/Health Insurance Coverage** NA

9. **Other Special Features** NA

STRENGTHS FOR CHRONICALLY ILL CHILDREN
==========

A. A measure of psychological state that includes a locus-of-control scale, a self-esteem scale and a measure of psychological well-being is included in the survey for handicapped and non-handicapped students.

B. Comparisons can be made with the National Longitudinal Survey.

WEAKNESSES FOR CHRONICALLY ILL CHILDREN
==========

A. The HS&B collects no information on risk factors, health services utilization, delivery system characteristics, expenditures and source of payment/health insurance coverage.

B. Only students enrolled in a high school program leading to graduation and diploma were sampled (thus excluding non-degree programs that are often attended by handicapped students).[1]

C. Students had to be able to read and complete the questionnaire which excluded some reading disabled and blind students.[1]

D. Any sampled student whose teachers considered to be "at risk" (i.e., anyone who may be made uncomfortable or unhappy about participating) was excluded, thereby probably eliminating a disproportionate number of handicapped students.[1]

E. The family background data provided by students (such as family income, parent education and occupation) have been found to be subject to some error when compared with the same information provided by the parents themselves. For nearly ninety percent of the sample, students are the only source for these data.[2]

F. In the 1980 survey, many of the demographic data were placed near the end of the student questionnaire. Slow students who were unable to complete the questionnaire did not provide this basic descriptive information.[2] (Note: Trial data were collected in later follow-ups.)

EXAMPLES OF PUBLISHED DATA
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(This is just a sampling of the tables available in the publications.)

A. Profile of handicapped students, 1980, 1982 using various definitions, (weighted sophomore cohort data). (See publication listed below under B.)

B. Estimates of the prevalence of specific handicaps from High School and Beyond 1980, 1982, and other sources. (See publication listed below under B.)

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1 Directly quoted from Ashbaugh, J: Inventory of National Data Files on Handicapped Children and Youth. Contract Report to the National Institute for Handicapped Research. Boston: Human Services Research Institute, 1985.

2 Directly quoted from Zill, Nicholas, Peterson, James and Moore, Kristin: Improving National Statistics on Children, Youth and Families. Washington, D.C.: Child Trends, Inc., 1984.

SELECTED PUBLICATIONS

A. High School and Beyond, 1980 Senior Cohort, First Follow-up 1982, Data Filer User's Manual, 83-212. National Center for Educational Statistics. Prepared under contract OE-300-78-0208, NCES 83-212.

B. Stocking: High School and Beyond, Characteristics of High School Students Who Identify Themselves as Handicapped. National Center for Education Statistics, Washington, D.C., June 1985.

-- FOR HS&B SUMMARY, SEE PAGE 55 --

NATIONAL AMBULATORY MEDICAL CARE SURVEY (NAMCS) - #8

SPONSOR

National Center for Health Statistics, DHHS

PURPOSE

The NAMCS is a national survey of ambulatory medical care services provided in the U.S.. Included are approximately 50,000 visits to a sample of 3,000 physicians. These are office visits made by ambulatory patients to non-federal physicians who are in office-based practice and engaged in direct patient care. Excluded are visits to hospital-based physicians, visits to specialists in anesthesiology, pathology and radiology; and visits to physicians principally engaged in teaching, research or administration. Telephone contacts and visits conducted outside the physician's office are also excluded. Periodically, supplementary items are added to the survey to investigate specific health conditions or other aspects of ambulatory care.

SURVEY DESIGN

NAMCS uses a three-stage survey design that involves probability samples of primary sampling units (PSUs), physician practices within PSUs, and patient visits within physician practices. In the 1980-81 survey, nearly 80 percent (3,676) of the eligible physicians participated in the studies. For these physicians, a sample week and a sample of patient visits during that week were randomly selected. Physicians were provided with patient logs to record all visits during the week and with encounter forms to record data concerning each sampled visit.

Data on patient's principal diagnosis from 1975-78 were coded according to the Eighth Revision of the International Classification of Diseases, Adapted for Use in the United States, (ICDA-8). 1979-1981 data were coded according to the International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM). Consequently, comparison of 1979-81 data with earlier data for any of the diagnostic groupings may be misleading.

The 1985 survey design is basically the same as previous surveys, except for the following specific changes: expansion of the questions relating to diagnostic and therapeutic services, listing of five drug categories instead of eight, changing

drug utilization from new or continued use to currently using drug, and adding a question on glucose tolerance, and on expected source(s) of payment. There are eight categories included in this latter question on payment: self-pay, Medicare, Medicaid, Blue Cross/Blue Shield, other commercial insurance, HMO/prepaid plan, no charge, other.

KEY WORDS

Acute disease; ambulatory care (utilization); chronic disease; diagnosis (classification); diagnostic tests, routine; drugs (prescription); drugs, nonprescription; follow-up care; medical history taking; physician (utilization); post-operative care; professional practice; preventive health services (utilization); signs and symptoms; specialties.

CONTENT SUMMARY

1. **Demographic** information is collected on the patient's age, sex, race and ethnicity, and geographic area.

2. **Risk Factors** NA

3. **Health Status** information covers prior visit and referral status; patient's complaint(s), symptom(s), or other reason for visit (acute, chronic condition, major diagnostic groupings, diagnoses); disposition of visit.

4. **Severity of Illness** NA

5. **Health Services Utilization** information is collected on physician visits, diagnostic and therapeutic services, preventive health visits, medication therapy, and duration of visit.

6. **Delivery System Characteristics** information is collected on the physician specialty (8 specialties), practice arrangement, and physician specialty.

7. **Health Care Expenditures** NA

8. **Source of Payment/Health Insurance Coverage** NA

9. **Other Special Features** NA

CHILD POPULATION SURVEYED

Published data are available for children under 15 and in various subgroups. Unpublished tabulations and data tapes give individual ages.

FREQUENCY
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The annual survey began in 1973 and has been conducted through 1981. The most recent survey was conducted in 1985.

AVAILABILITY
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Tabulations and reports based on NAMCS are available from NCHS Advance Data and Vital and Health Statistics, Series 13 reports. The latest published reports are available for 1981. Public use data tapes are also available for 1973 through 1981. Data from the 1985 survey are expected to be published by the end of 1986.

CONTACT
=======

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TOPIC AREAS
===========

1. **Demographics**

   A. Age

   B. Sex

   C. Race (White, Black, Asian or Pacific Islander, American Indian or Alaskan Native)

   D. Ethnicity (Hispanic origin or not)

   E. Geographic area (region, SMSA)

2. **Risk Factors** NA

3. **Health Status**

   A. Patient's reason for visit as expressed by patient's complaint(s), symptom(s), or other reason(s), for visit in patient's own words, coded according to a Reason for Visit Classification for Ambulatory Care (RVC)

   B. Major reason for visit as judged by the physician: acute problem, chronic problem (routine), chronic problem (flare up), post-surgery or post-injury, non-illness care (routine prenatal, general exam, well baby) (selected years only)

i. Physician diagnosis (first-listed diagnosis) coded according to the ICD-9-CM. Secondary and tertiary diagnoses unpublished

C. Prior visit or referral status

D. Disposition of visit (8 categories)

4. **Severity of Illness**

(Available only for selected years prior to 1979)

5. **Health Services Utilization**

A. Physician Visits

i. Diagnostic and therapeutic services ordered or provided including physiotherapy, office surgery, family planning, psychotherapy or therapeutic listening, diet counseling, family or social counseling, other (exact categories vary by year of survey)

ii. Medication therapy ordered or provided for selected diagnosis (1980, 1981 and later years only)

iii. Duration of visit--time spent face-to-face with physician

6. **Delivery System Characteristics**

A. Types of physician specialties: general and family practice, internal medicine, pediatrics, general surgery, obstetrics and gynecology, psychiatry, and other specialties

B. Types of practice include information on solo or partnership, group or other types of practice

C. Geographic location of physician's office (by region)

7. **Health Care Expenditures** **NA**

8. **Source of Payment/Health Insurance Coverage**

Expected source(s) of payment (8 categories) will be collected for the first time in the 1985 survey.

9. **Other Special Features** **NA**

STRENGTHS FOR CHRONICALLY ILL CHILDREN

A. NAMCS is one of the few national surveys on ambulatory care, albeit limited to office-based physicians.

B. NAMCS defines whether or not the physician visit was made for chronic, acute, preventive, or injury care in selected years.

C. The Complement Survey done in 1981 provides specific information on office visits to non-office-based physicians. Visit characteristics to non-office-based physicians can be compared to visits to office-based non-federal physician's not specializing in anesthesiology, pathology or radiology.

D. A significant number of office visits by minorities is represented in the Complement Survey.

WEAKNESSES FOR CHRONICALLY ILL CHILDREN

A. Limited information is available on severity of illness and no information is collected on risk factors, expenditures and source of payment/health insurance coverage, although the latter will be collected in 1985.

B. Data from NAMCS cannot be compared to the National Medical Care Utilization and Expenditure Survey (NMCUES). The two surveys vary in populations, data collection methodology and definitions.

C. NAMCS estimates for total physician visits differ from those from NHIS because of methodological differences. For example, NAMCS excludes all office visits in Alaska and Hawaii and all office visits to non-office-based physicians.

D. Disease categories for primary diagnosis from the ICD-9-CM code are too broad to capture specific diagnoses. The only chronic disease information available is from the data items "chronic problem" routine and "chronic problem flare-up" listed as two of five major reasons for the physician visit.

E. Number of visits not number of children is collected. Therefore, it is impossible to know if one child made 5 visits or if 5 children made one visit. Visit rates are available.

F. Non-office-based physicians are excluded in both the main survey, but are included in the Complement Survey.

G. Data from NAMCS cannot be linked to the National Hospital Discharge Survey.

EXAMPLES OF PUBLISHED DATA

(This is just a sampling of the many tables available from the research reports listed under publications.)

A. Number, percent distribution and rate of office visits by sex, age, race, ethnicity; by physician specialty and type of practice, and geographic location; by principal reason for visit as expressed by patient; by major reason for visit (includes chronic problem routine and chronic problem flare up), prior visit status, and referral status; by diagnostic services ordered or provided; by principal diagnosis rendered by physician; by other significant current diagnosis rendered by physician (not published); by medication therapy ordered or provided; by non-medication therapy; and by disposition and duration of visit. (See publication listed below under A.)

B. Number of office visits made by adolescents (11-14, 15-20) and all other age groups and percent distribution by selected visit characteristics, according to age: U.S., 1980-81. (See publication listed below under A.)

C. Number of office visits made by adolescents and percent distribution by the 20 most frequent principal reasons for visits (and 20 most frequent principal diagnoses), according to age: U.S., 1980-81. (See publication listed below under A.)

D. Number of drug mentions in office visits made by adolescents and all other age groups and percent distribution by therapeutic category (and by most frequently named drugs), according to age: U.S., 1980-81. (See publication listed below under F.)

E. Estimated number and percent distribution of office visits to Complement Survey and NAMCS physicians by selected patient characteristics (also by selected physician and physician practice characteristics; by major reason for visit, prior visit status, and referral status; by patient's principal reasons for visit; by number and type of diagnostic services ordered or provided): U.S., 1980. (See publication listed below under E.)

F. Number of office visits to pediatricians by location of physician's practice and percent distribution by type of practice, according to location of physician's practice: U.S., January 1980-December 1981. (See publication listed below under B.)

G. Mean duration of office visits to pediatricians, by selected principal diagnostic categories and prior visit status: U.S., January 1980-December 1981. (See Publication listed below under B.)

H. Number of office visits to general and family practitioners and percent distribution by type of practice, according to location of physician's practice: U.S., January 1980-December 1981. (See Publication listed below under C.)

SELECTED PUBLICATIONS

(Additional publications can be obtained from the contact.)

A. Lawrence, L and McLemore, T: 1981 Summary National Ambulatory Medical Care Survey. Advance Data from Vital and Health Statistics. No. 88, DHHS Pub. No. (PHS)83-1250, March 1983. (Previous years summaries are also available.)

B. Cypress, B: Patterns of Ambulatory Care in Pediatrics: The National Ambulatory Medical Care Survey U.S., January 1980-December 1981. Vital and Health Statistics. Series 13, No. 75, Pub. No. (PHS) 84-1736, October 1983.

C. Cypress, B: Patterns of Ambulatory Care in General and Family Practice, National Ambulatory Medical Care Survey, January 1980-December 1981. Vital and Health Statistics. Series 13, No. 73, DHHS Pub. No. (PHS) 83-1734, September 1983.

D. Cypress, B: Patterns of Ambulatory Care in Obstetrics and Gynecology: The National Ambulatory Medical Care Survey, January 1980-December 1981. Vital and Health Statistics. Series 13, No. 77, DHHS Pub. No. (PHS) 84-1738, May 1984.

E. Cypress, B: Medication Therapy in Office Visits for Selected Diagnoses: The National Ambulatory Medical Care Survey. U.S., 1980. Vital and Health Statistics. Series 13, No. 71, DHHS Pub. No. 83-1732, January 1983.

-- FOR NAMCS SURVEY, SEE PAGE 56 --

NATIONAL HEALTH AND NUTRITION EXAMINATION SURVEY (NHANES) - #9

SPONSOR

National Center for Health Statistics, DHHS

PURPOSE

The NHANES are a series of national cross-sectional surveys of noninstitutionalized persons based on household interviews, physical examinations, and clinical and laboratory tests to assess the health and nutritional status of the U.S. population. Data are collected on the prevalence of specific diseases or pathological conditions, nutritional status, and physical, physiological and psychological measurements with several socioeconomic and demographic variables.

The NHANES programs were preceded by more limited surveys called the National Health Examination Surveys (NHES).

SURVEY DESIGN

The design is a stratified, multistage cross-sectional probability sample of households throughout the United States. Medical history and demographic information are collected by household interviewers. The sample is selected so that young and aging populations are over-sampled. Medical examinations are administered in mobile examination centers where examination procedures are carried out under uniform and controlled conditions. Each cycle of the survey has required 3-4 years to complete because of the limitations in the number of persons who can be examined in a given time span and the pattern of data collection. (Two longitudinal follow-up studies have been performed that included a child population of 2,200 in the NHES survey and an adult population in the NHANES I.)

The first Health and Nutrition Examination Survey (NHANES I), conducted during the period 1971-75, was designed to measure the nutritional status and health of the U.S. population, ages 1-74 years, and to obtain more detailed information on the health status and medical care needs of adults ages 25-74 years in the civilian noninstitution-alized population. The information obtained during the course of the survey consisted of: a dietary interview; general medical histories and detailed histories of respiratory disease, cardiovascular disease, and arthritis; a health care needs and general well-being questionnaire; a general medical examination; a dental, dermatological, and ophthalmological

examination; anthropometry; vision tests and speech tests; x-rays of the hands, knees, hips and chest; blood and urinary laboratory tests; an electrocardiogram; spirometry and pulmonary diffusion tests; and tap water samples. There were a total of 32,331 sample persons of which 31,973 were interviewed and 23,808 were examined.

In HANES II, conducted between 1976 and 1980, additional tests and procedures were included to provide data on diabetes, kidney disease, heart disease, hypertension, certain allergies, disc degeneration, pulmonary function, hearing and speech problems, and exposure to certain potentially toxic substances including lead. This survey covered persons ages 6 months through 74 years. There were a total of 27,801 sample persons, of whom 25,286 were interviewed and 20,322 were examined.

As a special subpopulation survey, the Hispanic HANES (HHANES) was conducted from July of 1982 to December of 1984 to obtain health data on the Mexican-American, Puerto Rican and Cuban populations. The content is similar to that of the two previous national surveys. Out of a sample of about 16,000 persons, approximately 12,000 were examined.

The third National Health and Nutrition Examination Survey (NHANES III), to be conducted in 1988, is considering the establishment of a prospective cohort study using NHANES III as the baseline. A 3-hour examination with questionnaires, biochemical measurements, and medical procedures will be administered to some 20,000 persons, 6 months to 74 years of age, over a 2-year period.

KEY WORDS

Abnormalities (congenital); activities of daily living; acute disease; alcohol drinking; ambulatory care (utilization); attitude to health; birth injuries; birth weight; chronic disease; dental care (utilization); diagnosis (classification); diagnostic tests, routine; disability evaluation; drugs, nonprescription; drugs (prescription); environmental pollutants (exposure); financing, government; health manpower (utilization); health services accessibility; hospitalization; infant, premature; insurance, health; medical history taking; mental disorders; nutrition; physical examination; physician (utilization); signs and symptoms, smoking; specialties; substance use disorders.

CONTENT SUMMARY

(Note: The content is not the same for each NHANES survey. The following description is a general content summary.)

1. **Demographic** information is collected on age, sex, race and ethnicity, geographic area, marital status, family size and composition, education, employment status and occupation, income, and public assistance status.

2. **Risk factor** information includes blood lead levels, history of eating unusual substances, environmental exposure to toxic substances, smoking, alcohol consumption, substance abuse, coffee usage, aspirin usage, exercise, nutrition, age of mother at birth, number of brothers/sisters weighing less than 5 1/2 lbs., infant feeding practices (including breastfeeding), and exposure to active tuberculosis.

3. **Health Status** information is collected on acute conditions and chronic conditions; depression; body measurement; weight; nutritional status; dental caries; perceived health status; birth conditions; premature birth; birth weight; and main reason for visit.

4. **Severity of Illness** information is collected on limitation of activity, school-loss days, and bed disability days (for certain diseases only).

5. **Health Services Utilization** information, is collected on hospitalization, physician visits, dental visits, and use of medications (for certain and use of medications (for certain diseases).

6. **Delivery System Characteristics** are collected on usual source of care, interval since last visit, physician specialty, distance to provider, and waiting times. (HHANES only)

7. **Health Care Expenditures** NA

8. **Source of Payment/Health Insurance Coverage** information is collected on third party payers and reasons for lack of insurance. (HHANES only)

9. **Other Special Features** information includes changes in living conditions resulting from health condition, reasons for no health care, and satisfaction with care.

CHILD POPULATION SURVEYED

In NHANES II, 7,818 children between the ages of 6 months-17 years were interviewed (out of a total of 27,803 persons of all ages) and 7,818 were examined (out of 20,322). In Hispanic HANES, 6,000 children (out of 14,000) were interviewed and 5,500 (out of 11,700) were examined. Published data are available for children under 18 and in various subgroups. Data tapes provide individual ages.

FREQUENCY

Hispanic HANES	1982-84
NHANES II	1976-80
NHANES I	1971-74
NHES III	1966-70
NHES II	1963-65
NHES I	1960-62

AVAILABILITY

Tabulations and reports based on the NHANES data appear in Series II of the Vital and Health Statistics publication series available from the National Center for Health Statistics. Recent reports are listed in "Catalog of Publications of the National Center for Health Statistics, 1980-84." The catalog and information regarding earlier publications may be obtained from the Scientific and Technical Information Branch, Division of Data Services, National Center for Health Statistics, (301) 436-8500. Public use data tapes are available from both the NHANES I and NHANES II. Preliminary data are available from the Hispanic HANES. The cost is approximately $160 per tape. Two reports from HANES II, on hematological and nutritional biochemistry and blood lead levels, are also available.

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TOPIC AREAS

1. **Demographics**

   A. Age

   B. Sex

C. Race (Aleut, Eskimo, or American Indian, Asian or Pacific Islander, Black, White, other) and ethnicity (Puerto Rican, Cuban, Mexicano, Mexican American, Mexican Chicano, other Latin American, other Spanish)

D. Marital status

E. Geographic area (rural/urban, region, SMSA)

F. Family size and composition

G. Acculturation (HHANES only)

H. Educational status of head of household

I. Employment status and occupation

J. Annual family income (12 income categories included)

i. Poverty Index is determined by the Poverty Income Ratio (PIR) developed by the Social Security Administration. Two components make up the PIR: the numerator-the median of the income group of incomes above $7,000; the sum of the component parts of the income under $7,000, and the denominator-a multiple of the total income necessary to maintain a family with given characteristics on a nutritionally adequate food plan.

K. Public assistance status

2. **Risk Factors**

A. Blood lead levels (NHANES II and HHanes only)

B. History of eating unusual substances (e.g., clay, starch, other)

C. Environmental exposure to pesticides and other toxic substances (NHANES II and HHanes only)

D. Smoking history

E. Alcohol consumption (beer, wine, hard liquor)

F. Substance abuse (duration and frequency of use of marijuana, cocaine, and inhalants) (HHanes only)

G. Coffee usage

H. Aspirin usage

I. Amount of exercise

J. Nutritional status (based on hematological and nutritional biochemistry analysis) and dietary intake questionnaire

K. Age of mother at birth

L. Number of siblings weighing less than 5 1/5 lbs

M. Lived in household with a person with active tuberculosis

N. Infant feeding practices: breastfed, formula, introduction of solid food

3. **Health Status**

A. Prevalence of selected acute conditions

B. Prevalence of selected chronic conditions

i. Depression (HANES I and HHANES only)

C. Body measurements for height, weight, skin-fold

D. Weight

E. Nutritional status (based on hematological and nutritional biochemistry analysis) and dietary intake questionnaire

F. Dental caries (HANES I and HHANES only)

G. Perceived health status (excellent, very good, good, fair, poor)

H. Prevalence of selected birth conditions

I. Premature birth

J. Birth weight

K. Main reason for health visit

4. **Severity of Illness**

A. School-loss days (due to certain conditions)

B. Bed disability days (due to certain conditions)

C. Limitation of activity (due to certain conditions)

5. **Health Services Utilization**

A. Hospitalization

i. Number of hospitalizations for certain conditions

B. Physician Visits

C. Dental Visits

i. Age at first visit
ii. Frequency
iii. Receipt of fluoride treatment

D. Medications

i. Use of vitamins or minerals or dietary supplements
ii. Use of medicines/drugs

6. **Delivery System Characteristics** (HHANES only)

A. Usual source of medical care for routine health care and illness or injury care

B. Time interval since last visit

C. Physician specialty

D. Distance to medical care site

E. Appointment waiting time

F. Waiting time at visit

7. **Health Care Expenditures** NA

8. **Source of Payment/Health Insurance Coverage** (HHANES only)

A. Third party payers

i. Medicaid
   a. Does person have a Medicaid card?
   b. Payment for health care during past 12 months
ii. CHAMP-VA or other program for military dependents or survivors
iii. Medicare coverage for hospital bills
iv. Any other insurance plan that pays any part of a hospital's, doctor's or surgeon's bill
v. Any insurance plan for dental care

B. Reasons for lack of health insurance

i. Care received through Medicaid or welfare
ii. Unemployed or reasons related to unemployment
iii. Can't obtain insurance because of poor health, illness, or age
iv. Too expensive, can't afford health insurance
v. Dissatisfied with previous insurance

vi. Doesn't believe in insurance
vii. Have been healthy, not much sickness in the family, haven't needed health insurance
viii. Military dependent, CHAMPUS-VA, Veteran's benefits
ix. Some other reason

9. **Other Special Features**

A. Changes in living conditions, lifestyle or employment because of health condition

i. Need to move, install air conditioner, humidifier or air cleaner because of allergy symptoms
ii. Need to change job or stop work because of health problem (list health problem)
iii. Need to change temporarily or permanently to an easier job
iv. Need to cut down to part-time work or stop work for a few months

B. Reasons for lack of health care

C. Satisfaction with care

STRENGTHS FOR CHRONICALLY ILL CHILDREN

A. NHANES are the only national surveys that collect extensive information on a broad range of risk factors.

B. NHANES are the only national surveys that provide estimates of the health status and risk factors of the population based on direct medical examination and testing. Prevalence data are therefore not as dependent on reporting and knowledge of a parent or physician, as in the case of NHIS survey.

C. The household interview and questionnaire responses may be objectively compared to the results of the medical examination and medical testing procedures.

D. The Hispanic NHANES (1982-1985) will provide special health and nutritional data for persons 6 months-74 years for Mexican Americans, Cuban Americans and Puerto Ricans. Preliminary data were presented on the maternal and child health of Mexican Americans in a paper presented at the American Public Health Association Meeting in November, 1985.

E. Adolescents ages 12 and over respond for themselves concerning smoking habits, food consumption, pregnancy history and recent bodily symptoms. In Hispanic NHANES, children 6 years of age and over respond for themselves to questions about vision and hearing problems in school. More accurate reporting should result from this.

F. Questions concerning diet, medication, and behavior are administered in the privacy of examination trailers which may produce more candid reporting, especially by adolescents.

G. Children 6 months-5 years and persons at or below the poverty level were deliberately over-sampled for the nutritional assessment since they were assumed to be at special risk of having nutritional problems.

WEAKNESSES FOR CHRONICALLY ILL CHILDREN

A. No health care expenditure data are available and source of payment/health insurance coverage and delivery system characteristics information was only collected in the HHANES. Limited information was collected on health services utilization.

B. The long intervals between the survey and published data make it difficult to use for tracking short-term changes.

C. It is difficult to compare data from NHANES I and NHANES II because of changes in the survey design and topics included.

D. Medical examiners must rely on medical history information provided by the respondent (especially for the diagnosis of conditions that are not readily apparent on examination). Some of the biases associated with the respondent's educational level and prior exposure to medical terminology may be found.

E. In both NHANES I and II the sample of children is not large enough to produce many cases of children with low prevalence/rare chronic conditions.

EXAMPLES OF PUBLISHED DATA

(This is just a sampling of the many tables available in the Publications.)

A. Number and selected percentiles of blood lead levels for children 6 months - 17 years. (See publication listed below under G.)

B. Percent of children 6 months - 5 years with a history of eating unusual substances by age, sex, race, annual family income, degree of urbanization, prior test for lead poisoning and blood-lead level. (See publication listed below under G.)

C. Stature by age percentiles for boys and girls ages 2 - 18 years. (See publication listed below under F.)

D. Weight by age percentiles for boys and girls ages 2 - 18 years. (See publication listed below under F.)

SELECTED PUBLICATIONS

NHANES findings are published by the NCHS in Series II of Vital and Health Statistics. Recent reports are listed in "Catalog of Publications of the National Center for Health Statistics, 1980-84." The catalog and information regarding earlier publications may be obtained from:

Scientific and Technical Information Branch
Division of Data Services
National Center for Health Statistics
3700 East West Highway
Hyattsville, MD 20782
(301) 436-8500

In addition to findings being published in Vital and Health Statistics, NCHS staff and a growing number of extramural researchers have used NHANES data in articles published in the scientific literature.

A. Plan and Initial Program of the Health Examination Survey: United States. Vital and Health Statistics. Series 1, No. 4, DHHS Pub. No. (PHS) 1000, July 1965.

B. Plan, Operation, and Response Results of a Program of Children's Examinations: United States. Vital and Health Statistics. Series 1, No. 5, DHHS Pub. No. (PHS) 1000, Oct. 1967.

C. Plan and Operation of a Health Examination Survey of U.S. Youths 12-17 Years of Age: United States. Vital and Health Statistics. Series 1, No. 8, DHHS Pub. No. (PHS) 1000, Sept. 1969.

D. McDowell, A et. al: Plan and Operation of the Second National Health and Nutritional Examination Survey, 1976-1980: United States. Vital and Health Statistics. Series 1, No. 15, DHHS Pub. No. (PHS) 81-1317, July 1981.

E. Plan and Operation of the Hispanic Health and Nutrition Examination Survey, 1982-84: United States. Vital and Health Statistics. Series 1, No. 19, DHHS Pub. No. (PHS) 85-1321, Sept. 1985.

F. Hamill, P: NCHS Growth Curves For Children from Birth - 18 Years, 1977: United States. Vital and Health Statistics. Series 11, No. 156, DHHS Pub. No. (PHS) 78-1650.

G. Fulwood, R, Johnson, CL, Bryner, JD et al.: Hematological and Nutritional Biochemistry Reference Data for Persons 6 Months-74 Years of Age, United States. Vital and Health

Statistics. Series 11, No. 232, DHHS Pub. No. (PHS) 83-1682, Dec. 1982.

H. Pilch, SM, Senti, FR (eds): Assessment of the Iron Nutritional Status of the U.S. Population Based on Data Collected in the Second National Health and Nutrition Examination Survey, 1976-1980. Contract No. (FDA) 233-83-2384. Bethesda: Federation of American Societies for Experimental Biology, Aug. 1984.

I. Evans, R: Present Evidence on Mortality and Morbidity of Asthma. Presented at the Fogarty International Center, Washington, D.C., 1985.

J. Johnson, M and Roberts, J: Skin Conditions and Related Need for Medical Care Among Persons 1-74 Years, United States, 1971-74: Vital and Health Statistics. Series 11, No. 212, DHEW Pub. No. (PHS) 79-1660, Nov. 1978.

K. Ganley, J and Roberts, J: Eye Conditions and Related Need for Medical Care among Persons 1-74 Years of Age, United States, 1971-72. Vital and Health Statistics. Series 11, No. 228, DHHS Pub. No. (PHS) 83-1679, Mar. 1983.

-- FOR NHANES SUMMARY, SEE PAGE 58 --

NATIONAL HEALTH INTERVIEW SURVEY (NHIS) - #10

SPONSOR

National Center for Health Statistics, DHHS

PURPOSE

The NHIS is a national cross-sectional household interview survey of the civilian noninstitutionalized population. In each calendar year data are collected on about 40,000 households including 110,000 persons. Data are collected on the incidence of acute illness, prevalence of chronic conditions and impairments, the extent of disability and limitation of activity, and measures of health care utilization, with several socioeconomic and demographic variables.

SURVEY DESIGN

This survey is a cross-sectional household interview survey. The sampling plan follows a multistage probability design that permits the continuous sampling of households and is designed so that tabulations can be made for each of the four major geographic regions and selected places of residence. In-person interviews are conducted each week throughout the year so that each week's sample is representative of the target population and the weekly samples are additive over time. The annual response rate of NHIS is at least 95% of the eligible households in the sample. All adult members 17 years and over are invited to participate and respond for themselves. The mother is the usual respondent for the child. Between 60% and 65% of the adults ages 17 years or over are self-respondents.

A major change made in 1979 affects the comparison of 1979, 1980, and 1981 illness data with the data from earlier years. Starting in 1979, illnesses were coded using the Ninth Revision of International Classification of Diseases, rather than the Eighth revision used in 1978 and earlier years. In 1982, more general changes were made in data collection techniques (order and wording of questions). These changes make comparisons difficult.

In 1985, there is a plan to extend the survey sample to 51,000 households and increase the number of households per segment from 4 to 8, with a decrease in the number of primary sampling units from 376 to 201.

KEY WORDS

Activities of daily living; acute disease; ambulatory care (utilization); attitude to health, chronic disease; dental care (utilization); diagnosis, classification; disability evaluation; financing, government; hospitalization; insurance, health; physician (utilization); signs and symptoms; surgery, operative.

CONTENT SUMMARY

1. **Demographic** information is collected on age, sex, race and ethnicity, income, marital status, family size and composition, employment status and occupation, education, geographic area, and public assistance status.

2. **Risk Factor** information (see Child Health Supplement).

3. **Health Status** information covers incidence of acute conditions and prevalence of chronic conditions and impairments, major diagnostic groupings, perceived health status, reason for visit, and condition causing visit.

4. **Severity of Illness** information is collected on limitation of activity by degree, school-loss days, bed disability days, restricted days, and work-loss days.

5. **Health Services Utilization** information is collected on hospitalization (inpatient), hospital outpatient/clinics, emergency rooms, surgery, physician visits, and dental visits.

6. **Delivery System Characteristics** information is collected on facility type, site of care, physician specialty, hospital ownership, and time interval since last visit.

7. **Health Care Expenditures** NA

8. **Source of Payment/Health Insurance Coverage** information is collected on use of Medicaid for health care payment, reasons for lack of insurance, and status of insurance coverage during job lay-off or loss. Information on insurance coverage is collected on an irregular basis.

9. **Other Special Features** information is collected on satisfaction with care.

CHILD POPULATION SURVEYED

Approximately 30,000 of the sample persons are children under 17. Published population breakdowns include all children under 17 years; children under 6 and 6-16 years.

FREQUENCY
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The survey has been conducted annually since 1957. The most recent data published are from 1982. In recent years, supplements have been added each year to obtain information on specific topics. See the Child Health Supplement (#5) for more information. The core items make up approximately 70% of the questionnaire and are repeated each year. Published data from the 1983 survey will be available in 1986.

AVAILABILITY
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Reports based on the National Health Interview Survey are available in Current Estimates, Series 10 as well as NCHS' Advance Data reports. The latest published reports are for 1983. Public use data tapes for the core surveys are available from 1969-1983, and for the supplemental surveys, from 1973-1983.

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=======

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TOPIC AREAS
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1. **Demographics**

   A. Age

   B. Sex

   C. Race (Aleut, Eskimo, or American Indian, Asian or Pacific Islander, Black, White, Other) and National Origin (Puerto Rican, Cuban, Mexicano, Mexican American, Mexican Chicano, Other Latin American, Other Spanish)

   D. Family size and composition

   E. Marital status

   F. Geographic area (rural/urban, region, SMSA)

      i. Education
      ii. Employment Status
      iii. Occupation

   G. Family income

H. Public assistance status

i. Anyone in family receiving assistance though AFDC or ADC (Items I-P under Source of Payment/Health Insurance Coverage included in the 1982, 1983, and 1984 surveys)

ii. Anyone in family receiving SSI

2. **Risk Factors**

See Child Health Supplement for 1981 information.

3. **Health Status**

A. Prevalence of chronic conditions (defined as those conditions described by respondents as having been first noticed more than three months before the week of the interview or if it is one of the specified list of conditions always considered chronic by NHIS):

i. Condition Categories: prevalence of chronic conditions are estimated using six body system checklists: circulatory conditions; respiratory conditions; digestive conditions; skin and musculoskeletal conditions, genitourinary, nervous, endocrine, metabolic and blood-forming systems conditions; and other selected conditions. Estimates can be developed for about 100 individual conditions.

a. Conditions except impairments are classified by type according to the Ninth Revision of the International Classification of Diseases with certain modifications to make the code more suitable for household interview surveys. Conditions are also classified according to several general classification schemes developed by NHIS.

B. Prevalence of impairments (defined as chronic or permanent defects, usually static in nature, that result from disease, injury, or congenital malformation). Impairments are classified by a supplementary code in which impairments are grouped according to type of functional impairment and etiology.

i. Impairment Categories: deformities or orthopedic impairments, vision and hearing impairments, speech and intelligence impairments, back impairments, and impairments of lower extremities or parts of extremities.

C. Incidence of Acute Conditions: Acute conditions are defined as those illnesses and injuries that have lasted less than three months and have involved either medical attention or one day or more days of restricted activity. Includes only conditions that had their onset during two weeks prior to interview week.

i. Acute Condition Categories: infective and parasitic diseases, respiratory conditions, digestive system conditions, injuries, all other conditions. Also coded to ICD.

D. Perceived health status and condition of a person's health defined as excellent, very good, good, fair, or poor.

E. Reasons for physician visit

F. Condition causing physician visit

4. **Severity of Illness**

A. Limitation of Activity (Persons are classified into four categories according to the extent to which their activities are limited at present as a result of their chronic condition.)

i. Limitation of Activity -1. LA-1 for pre-school children is defined as inability to take part in ordinary play with other children. For school-age children it is defined as inability to attend school.

ii. Limitation of Activity - 2. LA-2 for pre-school children is defined as limited in amount or kind of play with other children. For school-age children it is defined as limited to certain types of schools or in school attendance.

iii. Limitation of Activity - 3. LA-3 for pre-school children is not classified in this category. For school-age children it is defined as not limited in going to school but limited in participation in athletics or other extracurricular activities.

iv. Limitation of Activity - 4. LA-4 for pre-school children and school-age children is defined as not limited in activities (includes persons whose activities are not limited in any of the ways described above).

a. Duration of Limitation of activity in months/years by primary and secondary cause of limitation of activity

B. School-loss days (for children 6-16). Defined as a day which the child did not attend school because of a specific illness or injury.

C. Bed disability days. Defined as a day on which a person stays in bed for all or most of the day because of a specific illness or injury. All or most of the day is defined as more than half of the daylight hours.

D. Restricted activity days. Defined as a day on which a person cuts down on his or her usual activities for the whole of that day because of an injury or illness.

E. Work-loss days (for persons 17 and over). Defined as a day on which a person did not work at his or her job or business for at least half of the normal work day because of a specific injury or illness.

i. Mobility restrictions (mostly in pre-1980 surveys)

5. **Health Services Utilization**

A. Hospitalization

i. Number of discharges from short-stay hospitals by condition
ii. Average length of stay
iii. Number of hospital days per person
iv. Number of hospital episodes per person
v. Type of operation performed

B. Physician Visits (defined as consultation with physician in person or by telephone, for examination, diagnosis, treatment or advice. Physicians include doctors of medicine and osteophathic physicians.)

i. Number of visits
ii. Medical advice by telephone
iii. Time interval since last physician visit

C. Dental Visits

i. Number of visits
ii. Time interval since last visit

6. **Delivery System Characteristics**

A. Site of care

i. Office, hospital, clinic, emergency room
ii. Facility type

B. Physician specialty: general practitioner or specialist

C. Hospital ownership

D. Time interval since last physician visit

7. **Health Care Expenditures** NA

8. **Source of Payment/Health Insurance Coverage**

(Prior to 1980, a limited set of insurance questions was collected every other year.)

A. Anyone in family covered by Medicare (Items A-H below are included in the 1980, 1982, 1983 and 1984 surveys)

B. Excluding Medicare, anyone in family covered by hospital insurance

i. Name of plan
ii. Any other hospital insurance plan
iii. Any other insurance plan paying any part of doctor's or surgeon's bill
a. Name of plan

C. For each plan, was it obtained through an employer or union or other group?

D. For each plan, does it pay any part of hospital expense, doctor's or surgeon's bills for operations?

E. Family member(s) covered

F. In past 12 months, did family member(s) receive medical care which has been or will be paid for by this plan?

G. Reasons for not being covered by any other health insurance (9 reasons)

i. Main reason (9 reasons)

H. In past 12 months, has any family member(s) received health care which as been or will be paid for by Medicaid?

I. Does anyone in family have a Medicaid card?

J. Anyone covered by any other public assistance program that pays for health care?

K. Anyone now receiving military retirement payments from Armed Forces or pension from the Veterans Administration (not including VA disability compensation).

L. Anyone covered by CHAMP-VA

M. Anyone covered by other program that provides health care for military dependents or survivors of military persons

N. Due to job layoff(s) or loss(es), did anyone in family lose any health insurance coverage that had been carried through employment.

O. For any time during job layoff or loss, was the household member without any type of health insurance coverage (excluding Medicaid or military benefit programs)

i. For how many months

P. For any time during job layoff or loss was household member covered by any other health care program, such as Medicaid, AFDC, or a military benefit program.

i. For how many months

9. **Other Special Features**

A. Satisfaction with care

STRENGTHS FOR CHRONICALLY ILL CHILDREN

A. Provides periodic national prevalence data for children with chronic diseases, including severity of illness indicators and specific demographic and socioeconomic characteristics.

B. Data on diagnosis of child can be linked to demographic, utilization, and all other NHIS data.

C. NHIS is the largest general purpose health survey conducted annually.

D. Health characteristics can be displayed by selected demographic and socioeconomic characteristics.

E. A special supplement on child health was conducted in 1981 and is now available (See Child Health Supplement - #5). Supplements in 1979 included topics on immunizations, smoking, home health care, eye care, residential mobility, and retirement income. In 1980 the supplements on home health care, residential mobility, and retirement income were continued and a supplement on health insurance added. It is possible to request a special supplement be included in the NHIS questionnaire.

F. Occasional supplemental data are collected on functional status (activities of daily living, 1979-1980, and disability, 1977).

WEAKNESSES FOR CHRONICALLY ILL CHILDREN

A. No information is available on health care expenditures.

B. Prevalence of chronic conditions not specifically identified in the six lists of chronic conditions are underestimated or unavailable, i.e., cancer and mental illness.

C. Children in long-term hospitals and institutions are excluded from the sample. Persons (not their dependents) on active duty with the Armed Forces are also excluded.

D. The prevalence of severe chronic conditions is so low in children that too few cases are available to analyze rare but severe specific childhood diagnoses (e.g., spina bifida). However, merging years of data tapes can help minimize this problem.

E. There are persistent racial discrepancies in NHIS data which are due in part to differences in recall or reporting styles rather than differences in illness experience. Black adults, for example, generally use less positive terms than white adults when relating their health or the health of their children. Blacks also report fewer episodes of illness-related disability than whites do.

F. Prior to 1978, NHIS collected prevalence data on only one of six body systems in a given year; data on all six were collected in a six-year cycle. Since 1978, data on all six body systems have been collected each year. Since each household was asked to provide information on only one of the six systems, statistical reliability of estimates of chronic conditions has declined. However, years can be combined to improve accuracy.

G. It is not possible to look at NHIS data by state, only by geographic regions.

H. Unless special tabulations are run, most of their published information is only for children under 6, and 6-17, making it difficult to examine data on adolescents, pre-school-age children and newborns.

I. The survey's only regular question on health insurance is limited to Medicaid. The questions ask if Medicaid was used to cover health care costs and if anyone in the family has a Medicaid card. Information on insurance coverage is collected on an irregular basis.

J. Hospital discharge data does not include condition causing hospitalization.

K. Impairments are classified by a special supplementary code. Code numbers from the International Classification of Diseases are not used. In their supplementary code, impairments are grouped according to type of functional impairment and etiology.

L. Prior to 1982, several breakdowns for under -$10,000 income groups were available but not enough breakdowns for persons with incomes above $10,000.

M. Parental reporting of disease affects accuracy of actual counts of children with certain chronic conditions. No clinical or physician validation is routinely undertaken. However, past studies have shown that severe chronic conditions are generally well-reported, except mental illness.

N. Because of the recent changes in survey design, comparison of pre- and post-1982 data are difficult.

EXAMPLES OF PUBLISHED DATA

(This is just a sampling of the many tables available from the research reports listed under Publications.)

A. Incidence of acute condition and number of acute conditions per 100 persons per year, by age (under 6, 6-16, and over), sex, and condition group: U.S., 1981. (See publication listed below under C.)

B. Days of restricted activity associated with acute conditions and days of restricted activity per 100 persons per year by age, sex, and condition group: U.S., 1981. (See publication listed below under C.)

C. Days of bed disability associated with acute conditions and days of bed disability per 100 persons per year, by age, sex and condition group: U.S., 1981. (See publication listed below under C.)

D. Days lost from school associated with acute conditions and days lost from school per children (6-16 years) per year by sex and condition group: U.S., 1981. (See publication listed under 6.3.0.)

E. Number and percent distribution of persons with limitation of activity due to chronic condition, by degree of limitation according to sex and age: U.S., 1981. (See publication listed below under B.)

F. Percent of persons with limitation of activity due to chronic conditions by race, Hispanic origin, and selected characteristics: U.S., 1978-80. (See publication listed below under I.

G. Percent of persons with limitation in major activity due to chronic conditions by race, Hispanic origin, and selected characteristics: U.S., 1978-80. (See publication listed below under I.)

H. Percent of persons with limitation of activity due to chronic conditions, by age, geographic region, and place of residence: U.S., 1980-81. (See publication listed below under J.)

I. Population and percent distribution of persons by activity limitation due to chronic conditions according to geographic region and place of residence: U.S., 1980-81. (See publication listed below under J.)

J. Population and percent of persons by perceived health status and percent of persons with Medicaid for 31 large SMSAs: U.S., 1981. (See publication listed below under J.)

K. Health profile of persons with and without a regular source of medical care by age: United States, 1978. By age (including under 17); by restricted activity days, bed days, limitation of activity, fair or poor health, 5 or more doctor visits per year, with dental visit in past year, dental visits per person per year, and with 1 or more hospital episodes. (See publication listed below under L.)

SELECTED PUBLICATIONS

(Data published by NCHS in Series 10)

A. The following major supplemental topics were covered by NHIS between 1959 and 1983 (see Vital and Health Statistics, Series 10): health insurance (1969,63,70,72,74,75,76,78,80, 82,93,84 - aging and health insurance); hearing impairments (1963,71,77); Loss of income (1968, 74); home care and/or nursing care (1959, 67,68,79,80); special aids (1959,69,77,79,80); medicines (1965, 73); smoking habits (1965, 66,70,74,76,78,79,80); corrective lenses (1963, 66,71,75,76,78); vision impairment (1963,71,77) x-ray visits (1961,64,70); acute conditions (1974); arthritis (1969); diabetes (1965,76); hypertension (1974); medical care availability/ barriers to care (1974,77); motor vehicles accidents (1968); dental care (1972,74,83); pregnancy (1973); preventive care (1973,82,85 -health promotion); specialist services and routine check-ups (1963); disability/functional limitation (1967,68,69,71,72,77,78,80); usual source of care (1974,75,78); accidents (1972,75); health maintenance organizations (1975); exercise (1985); health habits (1976,77,83); influenza (1978); Medicaid/AFDC (1977-1983); Armed Forces disability (1978); immunization for children (1979); eye care visits (1979,80); residential mobility (1979, 80); child health (1981); alcohol/health practices (1983).

B. Kovar, M and Poe, G: The National Health Interview Design, 1973-84, and Procedures, 1975-83. Vital and Health Statistics. Series 1, No. 18, DHHS Pub. No. (PHS) 85-1320. Washington, D.C.: Government Printing Office, August 1985.

C. Bloom, B: Current estimates from the Health Interview Survey: United States, 1981. Vital and Health Statistics. Series 10, No. 141, GPO Stock No. 017-22-00808011-7, October 1982. (Also published annually since 1978.)

D. National Center for Health Statistics: Current Estimates from the National Health Interview Survey, United States, 1982. Vital and Health Statistics. Series 10, No. 150. DHHS Pub. No. (PHS) 85-1578. Washington, D.C.: Government Printing Office, September 1985.

E. Feller, B: Health Characteristics of Persons with Chronic Activity Limitation: United States, 1979. Vital and Health Statistics. Series 10, No. 137, GPO Stock No. 017022-0077772-0, December 1981.

F. Feller, B: Prevalence of Selected Impairments: United States, 1977. Vital and Health Statistics. Series 10, No. 134, February 1981.

G. Ries, P: Hearing Ability of Persons by Socio-Demographic and Health Characteristics: United States. Vital and Health Statistics. Series 10, No. 141, August 1982.

H. Dental Visits, Volume and Interval Since Last Visit, United States, 1978 and 1979. Vital and Health Statistics. Series 10, No. 136, GPO Stock No. 017-022-00790-8.

I. Disability Days: United States, 1980. Vital and Health Statistics. Series 10, No. 143, GPO Stock No. 017-022-0824-6.

J. Trevino, F and Moss, A: Health Indicators for Hispanic, Black, White Americans. Vital and Health Statistics. Series 10, No. 148, GPO Stock No. 84-1576, September 1984.

K. Wilder C: Health Characteristics By Geographic Region, Large Metropolitan Areas, and Other Places of Residence: U.S., 1980-81. Vital and Health Statistics. Series 10, No. 146, (PHS) 84-1574, September 1984.

L. Bloom, B and Jack, S: Persons With and Without a Regular Source of Medical Care, United States. Vital and Health Statistics. Series 10, No. 151, DHHS Pub. No. (PHS) 85-1579. Washington, D.C.: Government Printing Office, September 1985.

M. Ries, P: Health Characteristics According to Family and Personal Income, United States. Vital and Health Statistics. Series 10, No. 147, DHHS Pub. No. (PHS) 85-1575. Washington, D.C.: Government Printing Office, January 1985.

N. Newacheck, P, Budetti, P, and Halfon, N: Trends in Activity-Limiting Chronic Conditions among Children. American Journal of Public Health. Vol. 76, No.2, February 1986.

O. Newacheck, P, Budetti, P, and McManus, P: Trends in Childhood Disability. American Journal of Public Health. Vol. 74, 1984.

P. Newacheck, P, and Halfon, N: The Association between Mother's and Children's Use of Physician Services. Medical Care. Vol. 24, No.1, 1986.

Q. Newacheck, P, Halfon, N, and Budetti, P: Prevalence of Activity Limiting Chronic Conditions among Children Based on Household Interviews. Journal of Chronic Diseases. Vol. 39, No. 2, 1986.

R. Newacheck, P, and Halfon, N: Access to Ambulatory Care Services for Economically Disadvantaged Children. Accepted for publication in Pediatrics.

-- FOR NHIS SUMMARY, SEE PAGE 60 --

NATIONAL HOSPITAL DISCHARGE SURVEY (NHDS) - #11

SPONSOR

National Center for Health Statistics, DHHS

PURPOSE

The NHDS is a national survey of inpatient utilization of non-federal short-stay hospitals in the U.S.. Data were abstracted in 1984 from 192,000 medical records from 407 hospitals with at least six beds and an average length of stay for all patients of less than 30 days. Medical data are coded according to the International Classification of Diseases, 9th Revision, Clinical Modification (ICD-9-CM). 1970-78 data were coded according to the Eighth Revision International Classification of Diseases, Adapted for Use in the United States (ICDA).

SURVEY DESIGN

The survey is based on a multi-stage stratified probability sample of patients discharged from non-federal short-stay hospitals. In the first stage a sample of hospitals was selected that was stratified by bed size and region. In each participating hospital a systematic sample of daily discharges is selected. There is no restriction on the age or other characteristics of the patient's sample. The records of selected patients are abstracted by trained representatives of NCHS. The final sample is weighted to produce national and regional estimates.

KEY WORDS

Delivery; diagnosis (classification); diagnostic related groups; financing, government; health facilities; hospitalization; insurance, health; ownership (hospital); surgery, operative.

CONTENT SUMMARY

1. **Demographic** information is collected on the patient's age, sex, race and ethnicity, marital status, and geographic area.

2. **Risk Factors** NA

3. **Health Status** information covers discharge diagnoses (up to 7 listed), major diagnostic grouping, and disposition of patient at discharge.

4. **Health Services Utilization** information is collected on hospital discharge frequencies and rate, days of care, average length of stay, number and rate of surgical and nonsurgical procedures.

6. **Delivery System Characteristics** information includes hospital bed size, type of ownership, and location (region of the country).

7. **Health Care Expenditures** NA

8. **Source of Payment/Health Insurance Coverage** information is collected on the principal and other additional expected sources of payment including 5 government, 2 private, and 3 other reimbursement sources.

9. **Other Special Features** NA

CHILD POPULATION SURVEYED

Under 15, excluding newborns (in published reports); Under 1 excluding newborns), 1-4, 5-9, 10-14 (in unpublished tabulations); Single years including newborns (in data tapes); Newborns, in recent published reports

FREQUENCY

Annual survey began in 1965. 1984 is the most current year for which data are available.

AVAILABILITY

Machine readable files for 1970-1983 are for sale at a cost of $125 each through the National Technical Information Service and from the National Center for Health Statistics. Annual data are published in Advance Data and in NCHS' Vital and Health Statistics Series 13.

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TOPIC AREAS

1. **Demographics**

   A. Age

B. Sex

C. Race (White, Black, American Indian, Asian/Pacific Islander, other)

D. Ethnicity (Hispanic origin, non-Hispanic); since 1979

E. Marital status

F. Geographical area (region)

2. **Risk Factors** NA

3. **Health Status**

A. Major diagnostic categories

B. Discharge diagnosis (principal, first-listed all listed--up to 7 diagnoses, obstetrical, normal delivery, complicated delivery)

C. Disposition of patient at discharge (alive: routine discharge/discharged home; left against medical advice; discharged, transferred to another short-term hospital; discharge, transferred to long-term care institution; disposition not stated)

5. **Health Services Utilization**

A. Hospitalization

i. Discharge rate
   a. Rate of days of care
   b. Average length of stay
   c. Procedures (surgical or nonsurgical operations, procedures or special treatments; surgical operations; biopsy)

ii. Rate of procedures

6. **Delivery System Characteristics**

A. Hospital size

B. Type of ownership of hospital: voluntary nonprofit, government, proprietary

C. Location of hospital (by region)

7. **Health Care Expenditures** NA

8. **Source of Payment/Health Insurance Coverage**

A. Principal and other additional expected sources

i. Government (Workmen's Compensation, Medicare, Medicaid; Title V, other government payments)
ii. Private sources (Blue Cross, other private or commercial insurance)
iii. Other sources (self pay, no charge, other)

9. **Other Special Features** NA

STRENGTHS FOR CHRONICALLY ILL CHILDREN

A. Up to 7 diagnoses and 5 procedures are coded on each discharge. (Prior to 1979, up to 5 diagnoses on 4 procedures were coded.)

B. Procedures and surgical information are available as a possible indicator of intensity of services used and severity of illness.

C. Principal expected sources of payment are available on each discharge.

D. NHDS is conducted annually.

E. The contents of the medical abstract forms for NHDS closely parallel the Uniform Hospital Discharge Data Set.

F. Many states have their own hospital discharge data sets that are compatible with the NHDS.

WEAKNESSES FOR CHRONICALLY ILL CHILDREN

A. Expenditure information is not available.

B. No mechanism is available to perform longitudinal analyses of children hospitalized.

C. Data on discharges, not persons, are collected. It is therefore impossible to know if a child was hospitalized 5 times per year or if 5 children were hospitalized once.

D. Veteran's and military hospitals and long term care institutions are excluded. (Note: ALOS must be less than 30 days.) However, approximately 95% of short-stay discharges are covered by the survey.

E. It is impossible to examine discharge data separately for childrens' hospitals and pediatric units in short-stay hospitals. Data are not available at that level because of the sample design.

F. Most of the NHDS published information is only for children under 15 and persons aged 15-44, making it difficult to examine adolescents. Special tabs and tapes are available, however.

G. There is no direct way to determine if diagnoses are chronic or acute. For moderate and severe chronic conditions, this may not be a problem since the ICD-9-CM codes may be sufficient descriptors. However, for mild chronic conditions, it may be difficult to ascertain whether the condition is chronic or acute.

H. As the survey title notes, only hospitalization information is available.

I. Source of payment data cannot be broken down into what proportion of the hospital stay and medical services were covered by each payment source.

J. Race and ethnicity of patients should be used with caution since so many did not state their race or ethnicity on the face sheet of the medical record. (Note: 8-12% of the discharges did not state race.)

K. In a number of cases, the first-listed diagnosis in the NHDS may not be the principal diagnosis.

L. Following AHA procedures, newborn bassinettes are not counted in the determination of hospital bed size.

M. For many moderate and severe but low prevalence chronic conditions and diagnoses, the NHDS data are statistically unreliable because of the small sample number of children hospitalized.

N. It is not possible to look at NHDS data by state or SMSA, only by geographic region.

EXAMPLES OF PUBLISHED DATA

(This is just a sampling of the many tables available from the research reports listed under Publications.)

A. Number, percent distribution and rate of children hospitalized, days of care, and ALOS by age (under 1, 1-4, 5-9, 10-14), sex, race (White, All Other, not stated), geographic region, first-listed diagnostic categories, all-listed diagnoses, number or rate of surgical and non-surgical procedures, discharge status, hospital bed size, type of hospital ownership. (See publication listed below under A.)

B. Number and percent distribution for newborn infants hospitalized by sex, geographic region, health status (well and sick), all-listed diagnoses, selected diagnostic categories. (See publications listed below under A and F.)

C. Number of children discharged, days of care and ALOS by principal expected sources of payment, by geographic region. (See publications listed below under A and F.)

SELECTED PUBLICATIONS

A. McCarthy, E and Kozak, L: Hospital Use by Children: United States, 1983. NCHS Advance Data. No. 109, DHHS Pub. No. (PHS) 85-1250, May 23, 1985.

B. Kozak, L and McCarthy, E: Hospital Use by Children in the United States and Canada. Vital and Health Statistics. Series 5, No. 1, DHHS Pub. No. (PHS) 84-1477, August 1984.

C. Dennison, C: 1984 Summary: National Hospital Discharge Survey. NCHS Advance Data. No. 112, DHHS Pub. No. (PHS) 85-1250, September 27, 1985.

D. Graves, E: 1983 Summary: National Hospital Discharge Survey. NCHS Advance Data. No. 101, DHHS Pub. No. (PHS) 84-1250, September 28, 1984.

E. Pokras, R and Kubishke, K: Diagnosis-Related Groupings Using Data from the National Hospital Discharge Survey. NCHS Advance Data. No. 105, DHHS Pub. No. (PHS) 85-1250, January 19, 1985.

F. Graves, E: Utilization of Short-Stay Hospitals, United States, 1983, Annual Summary. Vital and Health Statistics. Series 13, No. 83, DHHS Pub. No. (PHS) 85-1774, May 1985.

G. Graves, E: Utilization of Short-Stay Hospitals by Adolescents: United States, 1980. NCHS Advance Data. No. 93, DHHS Pub. No. (PHS) 83-1250, September 14, 1983.

H. Graves, E and Pokras, R: Expected Principal Source of Payment for Hospital Discharges, U.S. 1979. Advance Data from Vital and Health Statistics. No. 75, DHHS Pub. No. (PHS) 82-1250. February 16, 1982.

I. Uniform Hospital Abstract, Minimum Basic Data Set: A Report of the U.S. National Committee on Vital and Health Statistics, Series 4, Nov. 14. 1980.

J. Pokras, R and Gardocki, G: Expected Principal Source of Payment for Hospital Discharges: United States, 1977. Advance Data from Vital and Health Statistics. No. 62. DHHS Pub. No. (PHS) 81-1250, October 31, 1980.

K. Simmons, W: Development of the Design of the NCHS Hospital Discharge Survey, Vital and Health Statistics. DHHS Pub. No. (PHS) 1000, Series 2, No. 39, September 1970.

L. Kozak, L and Moien, M: Detailed Diagnoses and Surgical Procedures for Patients Discharged from Short-Stay Hospitals, United States, 1983. Vital and Health Statistics. DHHS Pub. No. (PHS) 85-1743, Series 13, No. 82, March 1985.

M. Lawrence, L: Detailed Diagnoses and Surgical Procedures for Patients Discharged from Short-Stay Hospitals, United States, 1984. Vital and Health Statistics. DHHS Pub. No. (PHS) 86-1747, Series 13, No.86, April 1986.

-- FOR NHDS SUMMARY, SEE PAGE 62 --

NATIONAL LONGITUDINAL SURVEY OF LABOR MARKET EXPERIENCE OF YOUTH (NLS) - #12

SPONSOR

Bureau of Labor Statistics, Department of Labor with assistance from DHHS' National Institute of Child Health and Human Development, National Institute of Drug Abuse, National Institute on Alcohol Abuse and Alcoholism, and the Department of Defense.

PURPOSE

The NLS began in 1966 to perform longitudinal studies of the labor market experience of four groups in the U.S. population: men 45-59, women 30-44, and young men and women 14-24 years of age. In particular, the Labor Department was interested in research on the education, training and work experiences of youth as part of the Job Training Partnership Act.

In 1977, a new annual longitudinal study of young men and women/youth was added to evaluate the Comprehensive Education and Training Act. The focus of the NLS has been on schooling, employment, job training, and household family structure. The new data replicates the earlier information obtained on young people and allows for further analyses of the variations in experience and training among young people. In addition to the employment data, NLS collects extensive information on formal education, marriage and fertility events, income and assets, family background, attitudes, aspirations and expectations, drug and alcohol use, family planning, child care, and maternal and child health care.

SURVEY DESIGN

A national probability sample of 11,400 14-22 year old men and women was selected with an overrepresentation of Blacks, Hispanics, and economically disadvantaged whites. The original sample included about 3,000 Black, 2,000 Hispanic, 2,000 economically disadvantaged and 5,500 mainstream white youth.

A supplementary sample of 1,200 armed forces personnel afforded study of the recruitment and service experience of youth in the military. Interviews have been conducted annually since 1979 and are planned through 1985. The respondents have now been interviewed seven times, with an addditional interview scheduled for 1986.

Non-military respondents were chosen using a multistage stratified sample of dwelling units and group quarter units. Military respondents were selected from Department of Defense rosters. Sample loss has been small -- in 1985, 95% of the original non-military sample was still being interviewed.

KEY WORDS
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Activities of daily living; alcohol drinking; ambulatory care (utilization); attitude to health, birth injuries; birth weight; contraception; delivery; diagnosis (classification); diagnostic tests, routine; disability evaluation; family planning; fertility; fetal death; gestational age; hospitalization; immunizations; infant mortality; infant, premature; insurance, health; labor complications; nutrition; outpatient clinics (utilization); physician (utilization); pregnancy; pregnancy complications; prenatal care; preventive health services (utilization); radiations (exposure); signs and symptoms; smoking; substance use disorders

CONTENT SUMMARY
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1. **Demographic** information is collected on individuals and families including: age, sex, race and ethnicity, education and training, religion, military status, employment and unemployment status, marital status, income and assets, occupation, family size and composition, residence, geographic area, migration, public assistance status, and child care arrangements.

2. **Risk Factor** information is collected on drinking, drug use, smoking, nutrition during pregnancy, pregnancy intervals, infant feeding practices, school discipline, and delinquency and crime.

3. **Health Status** information covers type of health problem (by ICD-9-CM) code, symptoms or conditions of child (1 year or less), height and weight, fertility/pregnancy history and outcome, self-rating of health, and reason for visit.

4. **Severity of Illness** information includes health limitation for work and housework and functional limitations.

5. **Health Service Utilization** information covers hospitalization (for newborn), prenatal care, diagnostic tests (during pregnancy), surgery/procedures, clinic visits (during infant's first year), physician visits (during infant's first year), preventive care services (during infant's first year), employment-based health services, immunizations, and family planning services.

6. **Delivery System Characteristics** information is collected on the site of care for the child during the first year of life.

7. **Health Care Expenditures** information includes outstanding bills, disability payments received, sick days with pay, and maternity/paternity leave.

8. **Source of Payment/Health Insurance Coverage** information is collected on availability of insurance benefits on current job, and health benefits in the military as an enlistment factor.

9. **Other Special Features** information includes the effect of spouse's health and family member's illness on respondent's work.

CHILD POPULATION SURVEYED

11,400 men and women ages 14-22 plus 1,200 military personnel were included in the survey. The 1985 version also looked at children 1 year and under who were offspring of the sample. In 1986, NICHD staff estimates that there will be 3,200 mothers in the sample with about 5,800 children (approximately 2,200 will be under the age of 3, 1,900 ages 3-5, and 1,700 between 6-12).

FREQUENCY

Interviews began in 1966 and were conducted periodically until 1977, since then they have been conducted annually.

AVAILABILITY
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Public use data tapes, tape documentation, and a list of publications are available for the 1979-1982 surveys from the Center for Human Resources Research. Single year files and extract files are available as well as the complete survey. The latest available tapes are for 1984. The 1985 tapes are not yet available. The Center for Human Resources Research (address below) operates a clearing house for NLS data problems and research.

CONTACT
=======

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TOPIC AREAS
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(Several of the following NLS variables are asked only in selected years.)

1. **Demographics**

   A. Age

   B. Race (Black, White, Other) and Hispanic origin

   C. Sex

   D. Marital Status

   E. Family size and composition

   F. Residence of self and family members

      i. Identifies usual living place of offspring of sample including long-term care institution

G. Geographic area (region, SMSA, county)

H. Migration

I. Household income from wages earned, military pay/monthly salary, Social Security, pensions, public assistance, unemployment compensation, disability payment, Aid to Families with Dependent Children payments, veteran's benefits.

J. Other financial characteristics including total net family assets, family income in past year, income from farm or own business in past year, income from wages or salary in past year, and spouse income.

K. Education and training

i. Current enrollment status
ii. Highest grade completed
iii. Type of training outside of regular school
iv. Reasons for discontinuing education (including pregnancy)

L. Employment and Unemployment Status

i. Current employer/job (state, local, federal employer or private business)
ii. Occupation
iii. Industry
iv. Class of worker
v. Shift worked
vi. Hourly rate of pay
vii. Hours worked per week for self and family members
viii. Part time/full time status
ix. Union membership
x. Covered by collective bargaining
xi. Job satisfaction
xii. Length of employment/length of unemployment
xiii. Retrospective evaluation of labor market experience including perception of discrimination by age, race, sex or other; whether or not progressed, held your own or moved backwards over past 5 years; and over past 5 years, whether job pressures have increased, decreased, or remained the same

M. Military Status

i. Service entered

N. Public assistance status

O. Religion

P. Child care arrangements, changes necessary, cost, travel required

2. **Risk Factors**

A. School discipline (suspended or expelled)

B. Delinquency and crime

C. Use of alcohol and drugs and smoking

i. Mother's consumption during year prior to birth

D. Diet during pregnancy (see Health Status for more on pregnancy history and outcome)

i. Vitamin supplements, diuretics, reduced caloric intake, salt

E. Pregnancy intervals

F. Feeding method for newborn (including breast-feeding)

3. **Health Status**

A. Type of health problem (by ICD-9-CM code)

B. Height and weight

C. Self-rating of health

D. Pregnancy history

i. Weight gain/loss during pregnancy
ii. Delivery method
iii. Early or late delivery

E. Outcome of each pregnancy

i. Live birth or not
ii. Height and weight of infant

F. Symptoms or conditions of infant (1 year or less) with injury or illness as reason for admission(s) to

hospital. The 1984 and 1985 surveys included fever, cold, sore throat, pneumonia, ear infection, vomiting, diarrhea or dehydration, rash, convulsions, jaundice, feeding problems (food allergy, formula tolerance, etc.), meningitis, asthma, bronchitis, other. The 1983 survey categories were accident, poisoning, diarrhea, pneumonia, surgery, other.

G. Nature of visit to hospital/clinic/doctor (due to injury or illness)

4. Severity of Illness

A. Health limitation for work and housework

i. Limitation from working on a job for pay
ii. Limitation in the kind or amount of work
iii. Duration of limitation

B. Functional limitations

5. Health Services Utilization

A. Prenatal care visits

i. X-rays taken during pregnancy: dental, chest, pelvic, other
ii. Sonogram and outcomes: existence of birth defect, growth, of fetus, other, as reason for sonogram
iii. Amniocentesis and its outcome: stage of pregnancy, normal child, birth defect (Down's syndrome, Tay Sachs, Neural tube defect, sex linked disease, immaturity of lungs.

B. Newborn's hospitalization

C. Clinic/doctor visit

i. For well baby care during first year of child's life, including age of child at each visit
ii. For child during its first year (age of child included)
- Number of visits
iii. Immunizations for each child (by age) of respondent: DPT, polio, measles
iv. Employment training program health or medical services

D. Family planning services

6. **Delivery System Characteristics**

   A. Source/site of child's care: doctor's office, public clinic, private clinic, health maintenance organization, hospital clinic, walk-in clinic, community health center, ER outpatient, other, hospital admission

7. **Health Care Expenditures**

   A. Money owed to doctors, hospitals, others

   B. Sick days with full pay

   C. Maternity/paternity leave

   D. Disability payments received

8. **Source of Payment/Health Insurance Coverage**

   A. Availability of insurance benefits on current job or in job training program

      i. Medical, surgical or hospital insurance that covers injuries or major illness off the job
      ii. Life insurance which would cover death for non job-related reasons
      iii. Dental benefits

   B. Health benefits in military as an enlistment factor.

9. **Other Special Features**

   A. Effect of spouse's health (or family member's illness) on respondent's work

   B. Time off work due to illness of self or family member, including for hospitalization of child

STRENGTHS FOR CHRONICALLY ILL CHILDREN

A. In the 1986 survey round, the NICHD proposes to collect new information about the physical, socio-affective and cognitive development of the 5,800 children in their sample. With this

information, the NICHD hopes to analyze some of the following issues: 1) differentials in child development between Black, Hispanic and White children, 2) differences in child outcomes associated with critical intervening factors (e.g., maternal health care during pregnancy, smoking, substance abuse, infant health care), 3) correlations among various child outcomes and their impact on childhood educational behavior, 4) effects of early childbearing on later child outcomes, and 5) examination of the common effects experienced by sister pairs in the NLS sample.

B. Extensive information is collected on health behavior of adolescents and young adults, a population group that has not been extensively studied in other national surveys.

C. The longitudinal nature of this survey allows for analysis over time of the relationship of employment and other risk factors to health status, severity of illness, and use of selected health care services. In the 1986 survey, additional questions will be asked on health insurance coverage.

D. NLS provides data on the extent of insurance coverage among young workers, a population that is often uninsured or underinsured.

E. Extensive analysis of the data, particularly related to employment, has been reported in the literature.

F. A wealth of fertility, family planning, pregnancy and birth-related information, and infant health is available in the NLS.

WEAKNESSES FOR CHRONICALLY ILL CHILDREN

A. A limited set of questions are asked on severity of illness, health expenditures, and source of payment/health insurance coverage.

B. The questions on severity of illness are not exactly comparable to those asked by the NHIS and NMCES/NMCUES.

EXAMPLES OF PUBLISHED DATA

(Contact the Center for Human Resources Research.)

SELECTED PUBLICATIONS

(This is just a sample of the publications available on the NLS. For a complete bibliography, contact the Center for Human Resources Research.)

A. The National Longitudinal Surveys Handbook. Columbus, Ohio: Center for Human Resource Research, Revised October 1983.

B. Bielby, W, Hawley, C, and Bills, D: Research Uses of the National Longitudinal Surveys. Part V of A Research Agenda for the National Longitudinal Surveys of Labor Market Experience: Report of the Social Science Research Council's Conference on the National Longitudinal Surveys. Washington, D.C.: Social Science Research Council, 1977.

C. Borus, M: An Inventory of Longitudinal Data Sets of Interest to Economists. Review of Public Data Use. (10) 1982.

D. Chirikos, T, and Nestel, G: Impact of Poor Health on the Work Status of Women. Paper presented at the Conference on Women and Health, Morgantown, West Virginia, October 1982.

E. Chirikos, T, and Nestel, G: Sex and Race Differentials in the Economic Consequences of Poor Health. Mimeographed, Columbus, Ohio: Center for Human Resource Research, 1982.

F. Crowley, J: Demographics of Alcohol Use among Respondents of the 1982 National Longitudinal Survey of Labor Market Experience of Youth Panel. Report to the National Institute on Alcohol Abuse and Alcoholism, 1983.

G. Crowley, J: Welfare and Early Motherhood. Paper presented to Ninth Annual Midwinter Meeting, Association for Women in Psychology, Seattle, Washington, March 1983.

H. Moore, K, Caldwell, S, Hofferth, S, and Waite, L: The Consequences of Early Childbearing: An Analysis of Selected Outcomes Using Results from the National Longitudinal Survey of Young Men (Parnes). Working paper. Washington, D.C.: The Urban Institute, 1977.

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J. Moore, K and Hofferth, S: The Consequences of Age at First Childbirth: Female-Headed Families and Welfare Recipiency. Working Paper 1146-05, The Urban Institute, 1978.

K. Mott, F: Welfare Incidence and Welfare Dependency Among American Women: A Longitudinal Examination. Mimeographed. Columbus, Ohio: Center for Human Resources Research, 1983.

L. Passmore, D: Relationship between Health Limits to Work and Employment of Teenagers and Young Adults. Mimeographed. Occupational and Vocational Studies, The Pennsylvania State University, n.d.

M. Center for Human Resource Research: Fertility, Maternal-Infant Health, and Child Cognitive and Emotional Assessment Data in the National Longitudinal Survey of Work Experience of Youth, The Ohio State University, April 1986.

-- FOR NLS SUMMARY, SEE PAGE 63 --

NATIONAL MEDICAL CARE EXPENDITURES SURVEY (NMCES) - #13

SPONSOR

National Center for Health Statistics and National Center for Health Services Research, DHHS

PURPOSE

The NMCES is a national survey on illness, use of health care services, expenditures, insurance, and other health-related information collected from a sample of the U.S. civilian noninstitutionalized population during 1977. It is the sixth survey on national health care utilization and expenditures that has been conducted since 1953. The NMCES data were obtained in three stages from:

- A randomly selected sample of approximately 14,000 households. Each household was interviewed six times in an 18-month period during 1977 and early 1978
- Physicians and health care facilities providing care to those household members in 1977
- Employers and insurance companies responsible for their coverage

SURVEY DESIGN

The NMCES used the national multi-stage area samples of the Research Triangle Institute and the National Opinion Research Center. Families with no insurance coverage were oversampled. Data were obtained from 91% of eligible households in the first interview and 82% by the fifth interview. See Publications for more detail on the sample design.

KEY WORDS

Activities of daily living; acute disease; ambulatory care (utilization); attitude to health; chronic disease; dental care (utilization); deductibles and coinsurance; diagnosis (classification); diagnostic tests, routine; disability evaluation; drugs (prescription); emergency service, hospital (utilization); equipment and supplies (utilization); expenditures, health; fees and charges; financing, government; health manpower (utilization); health services accessibility; hospitalization; insurance, health; outpatient clinics (utilization); physician (utilization); preventive health services (utilization); professional practice; signs and symptoms; specialties; surgery, operative.

CONTENT SUMMARY

1. **Demographic** information is collected on individuals and families including: age, sex, race and ethnic origin, education, employment, income, geographic area, family size and composition, marital status, and public assistance status.

2. **Risk Factors** NA

3. **Health Status** information covers conditions associated with and reason for each visit, including acute and chronic conditions, major diagnostic groupings, diagnoses, and signs and symptoms; and perceived health status.

4. **Severity of Illness** information includes limitation of activity, restricted activity days, bed disability days, and work-loss days.

5. **Health Services Utilization** information is collected on each contact with a provider of health services as well as the services delivered during each visit including hospital inpatient stays, hospital outpatient, emergency room visits, other medical provider visits (physician's office, clinic, dental visits, other medical provider visits), surgery, diagnostic tests, prescription medicines, and other medical services (eyeglasses, orthopedic items, hearing aids, diabetic items, ambulance service).

6. **Delivery System Characteristics** include information on usual source of medical and dental care, kind and location of place, convenience of care, physician/health provider specialty, and time interval since last visit.

7. **Health Care Expenditures** information is collected on individual and total charges and out-of-pocket expenditures for all types of health care provided, including flat fees (single charge covering multiple visits and/or services), care for which there was no charge (free from provider), hospital charges separate from inpatient physician and miscellaneous inpatient charges, and other health-related charges. Health insurance refunds for provider visits, hospitalizations, prescriptions and other medical services and supplies are linked to the specific visit or charge. Information on premiums and health insurance claims was also collected.

8. **Source of Payment/Health Insurance Coverage** information is collected on third party payers including Medicare, Medicaid, other public programs, and private programs; type of insurance coverage; benefits; and reasons for lack of insurance coverage.

9. **Other Special Features** information is collected on barriers to care, including reasons for not having a usual source of care and perceived problems in obtaining medical care for a condition.

CHILD POPULATION SURVEYED

Over 13,000 children and youth under 19 were surveyed. Published data are available for children under 19 and in various subgroups. Data tapes provide individual ages.

FREQUENCY

One-time survey conducted during 1977-1978. NMCUES is its 1980 counterpart. In 1987, a third national health expenditure survey, the National Medical Expenditure Survey (NMES), will be performed.

AVAILABILITY

Computer tapes are available at $175 from the National Technical Information Service (703-487-4650). Publications can be obtained from the Publications and Information Branch, NCHSR (301) 443-4100.

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TOPIC AREAS

1. **Demographics**

   A. Age

   B. Sex

   C. Race (American Indian or Alaskan Native, Asian or Pacific Islander, Black, White, other) and ethnicity (Hispanic - 8 groups)

D. Marital Status

E. Family size and composition

F. Education

G. Employment (for persons 14 and over)

H. Income

I. Geographic area (region and SMSA)

J. Public assistance status

2. **Risk Factors** NA

3. **Health Status**

A. Presence or absence of condition during interview

i. Acute condition
a. Selected diagnoses (ICD-9 as modified by the NHIS)

ii. Chronic condition
a. Selected diagnoses (ICD-9 as modified by the NHIS)

B. Condition associated with each visit

i. Selected diagnoses (ICD-9 as modified by the NHIS)

C. Reason for visit (diagnosis or treatment, general check-up, eye exam, immunization, family planning, other)

D. Perceived health status (excellent, good, fair, poor)

4. **Severity of Illness**

A. Limitation of activity associated with chronic health condition (as defined by the National Health Interview Survey but not necessarily due to chronic conditions)

B. Restricted activity days

C. Bed disability days

D. Work-loss days

5. **Health Services Utilization**

   A. Hospital inpatient stay (Note: Questions with * were asked for each of the following types of health care encounters.)

      i. *Date
      ii. *Type of provider, medicine or type of other expense, and location of hospital
      iii. *Reasons for admission/visit (condition)
      iv. *Services received
      v. *Operations, x-rays, and lab tests, procedures performed, diagnostic tests, anesthesia (limited information for inpatient only)
      vi. Length of stay
      vii. *Total charges

   B. Hospital outpatient department visit/hospital clinic

   C. Emergency room visit

   D. Medical provider visit (physician, dentist, other health provider)

      i. X-rays, lab test, other diagnostic procedures performed

   E. Prescribed medicine

      i. Type and quantity

   F. Other medical services (eyeglasses or contacts, hearing aids, corrective shoes, wheel chairs, ambulance services)

6. **Delivery System Characteristics**

   A. Type of provider and location of each health encounter provider includes hospital inpatient, hospital outpatient visit/hospital clinic, emergency room visit, physician office, infirmary, company clinic

   C. Usual source of medical and dental care

      i. Kind of place
      ii. Convenience of care
      iii. Reasons for not having a usual source of care

   D. Type and specialty of physician

   E. Type of allied health provider (chiropractor, podiatrist, optometrist, psychologist, social worker, nurse, physical therapist, other)

F. Time interval since last visit

7. **Health Care Expenditures**

A. Total charges for each service or supply (amount billed, not necessarily the actual amount paid or accepted as payment by the provider) for hospital inpatient stay, hospital outpatient visit/hospital clinic, emergency room visit, medical provider visit, other medical expenses

B. Amount of payments (reported in actual dollars and cents, percent, or flat fee amount, care for which there was no charge)

C. Amount of itemized medical deductions on income tax

D. Amount of out-of-pocket payment

E. Premium or payment for plan (per week, per month, per year not counting amount paid by any other source)

i. Any other source that pays all or part of the insurance premium

8. **Source of Payment/Health Insurance Coverage**

A. Third party payers for the total charges, hospital charges, collected separately from physician charges and other health-related charges:

i. Medicaid (including type of coverage, effective date and claim number)
ii. CHAMPUS/CHAMP-VA
iii. Indian Health Service or other federal health plan for American Indians or Alaska Natives
iv. Coverage by any other public assistance program (name of program and person(s) covered)
v. Coverage in an insurance plan that pays only for dental care (name of plan and person(s) covered)
vi. Coverage in an insurance plan which pays for any type of hospital bills, doctor bills, or surgeon bills (not including plans that pay <u>only</u> for accidents, dread disease or extra cash while in the hospital)

B. Type of insurance coverage for each plan listed above

i. Medicare Supplement?
ii. Does it pay any part of hospital expenses?
iii. ...pay any part of surgeon's bill?
iv. ...pay any part of doctor's bill for visits in the hospital?
v. ...pay any part of a dentist's bill for routine or regular

C. Time period of coverage (full/part year)

D. Main reason person is not covered by any health insurance plan

9. **Other Special Features**

A. Unmet needs/barriers to care

B. Perceived problems in obtaining medical care for a condition as a deterrent to seeking care

STRENGTHS FOR CHRONICALLY ILL CHILDREN

A. NMCES (and NMCUES) are the most comprehensive national financing data source for chronically ill children including an extensive amount of demographic, health status, severity of illness, utilization, delivery characteristics, expenditures and source of payment/health insurance coverage data.

B. Historical trends can be examined using the 1980 National Medical Care Utilization and Expenditure Survey (NMCUES).

C. Provider visit information is collected on a range of health care providers including physicians and other allied health providers.

D. Information is collected not only on each hospitalization and each visit to a range of providers, but also on the services rendered during each visit (e.g., lab, x-ray, drug prescriptions)

E. Information is collected on individual and total charges and amount reimbursed to the family and other sources of payment.

F. The National Center for Health Services Research (NCHSR) staff has conducted extensive analyses of the NMCES data set.

G. The next National Medical Expenditure Survey, planned for 1987, will provide additional data on institutionalized populations from facilities for the mentally retarded and psychiatric hospitals. The NMES will also oversample Blacks, Hispanics, elderly, poor and near-poor populations and persons with functional limitations.

WEAKNESSES FOR CHRONICALLY ILL CHILDREN

A. The information on health care delivery system characteristics, expenditures, and source of payment/health insurance coverage are out-of-date and do not necessarily reflect the current health care environment. However, it is possible, using synthetic estimates, to update the NMCES findings.

B. NMCES is a very complex data set so that quick data retrieval is not possible.

C. Data on limitation of activity was collected differently from NHIS and was not restricted to chronic conditions.

D. It is impossible to determine the relationship between the amount of care received and the general health of children because no physical examination or other direct health measurement took place.

EXAMPLES OF PUBLISHED DATA

(This is just a sampling of the many tables available from the research reports listed under Publications.)

A. Persons with limitations of activity due to chronic conditions: percent distribution of U.S. population, 1977. (See publication below under Data Preview 19, under A.)

B. Type of insurance coverage and limitations in activity for chronic conditions: percent distribution by age and limitation status. U.S., 1977. (See publication under Data Preview 19, under A.)

C. Persons covered by public or private health insurance for selected health services (hospital care, outpatient physician care, outpatient diagnostic services, outpatient prescriptions). U.S., 1977. (See publication under Data Preview 19, under A.)

D. Premiums and sources of payment for private health insurance: means, standard errors, and percent distribution by age and limitation status. U.S., 1977. (See publication under Data Preview 19, under A.)

E. Uninsured persons, family setting and insurance coverage of other family members: percent distribution by type of coverage for selected characteristics. U.S., 1977. (See publication listed under Data Preview 1, under A.)

F. Charges and sources of payment for ambulatory nonphysician services: mean charge per contact and proportion paid, by source of payment. U.S., 1977. (See publication under Data Preview 22, under A.)

G. Expenses for nonphysician health care providers: percent distribution of expenses by selected provider categories. U.S., 1977. (See publication under Data Preview 22, under A.)

H. Annual expenditures and sources of payment for ambulatory nonphysician services: mean expense per person with expense and percent paid, by source of payment. U.S., 1977. (See publication under Data Preview 22, under A.)

SELECTED PUBLICATIONS

(Additional publications can be obtained from the NCHSR Office listed below.)

A. *NCHSR National Health Care Expenditure Studies:

Data Preview 1: "Who Are the Uninsured?" Judith Kasper, Daniel Walden, Gail Wilensky. DHHS Pub. No. (PHS) 80-3276.

Data Preview 2: "Charges and Sources of Payment for Dental Visits with Separate Charges." Louis Rossiter, Walter Lawson. (PHS) 80-3275.

Data Preview 3: "Who Initiates Visits to a Physician?" Louis Rossiter. (PHS) 80-3278.

Data Preview 4: "Health Insurance Coverage of Veterans." Walter Lawson. (PHS) 81-3290.

Data Preview 5: "Charges and Sources of Payment for Visits to Physician Offices." Louis Rossiter, Matthew Solomon. (PHS) 81-3291.

Data Preview 6: "Waiting Times in Different Medical Settings: Appointment Waits and Office Waits." Judith Kasper, Mark Berk. (PHS) 81-3296.

Data Preview 7: "Employer and Employee Expenditures for Private Health Insurance." Amy Taylor, Walter Lawson. (PHS) 81-3297.

Data Preview 8: "Dental Services: Use, Expenditures, and Sources of Payment." Louis Rossiter. (PHS) 82-3319.

Data Preview 9: "Prescribed Medicines: Use, Expenditures, and Sources of Payment." Judith Kasper. (PHS) 82-3320.

Data Preview 10: "Medical Equipment and Supplies: Purchases and Rentals, Expenditures, and Sources of Payment." Michael Hagen. (PHS) 82-3321.

Data Preview 11: "Eyeglasses and Contact Lenses: Purchases, Expenditures, and Sources of Payment." Daniel Walden. (PHS) 82-3322.

Data Preview 12: "Usual Sources of Medical Care and Their Characteristics." Judith Kasper, Gerald Barrish. (PHS) 82-3324.

Data Preview 13: "Out-of-Pocket Expenditures for Personal Health Services." Louis Rossiter, Gail Wilensky. (PHS) 82-3332.

Data Preview 14: "Psychotropic Drugs: Use, Expenditures, and Sources of Payment." (PHS) 83-3360.

Data Preview 15: "Inpatient Hospital Services: Use, Expenditures, and Sources of Payment." Amy Taylor. (PHS) 83-3360.

Data Preview 16: "Contacts with Physicians in Ambulatory Settings: Rates of Use, Expenditures, and Sources of Payment." Gail Wilensky, Amy Bernstein. (PHS) 83-3361.

Data Preview 17: "Private Health Insurance: Premium Expenditures and Sources of Payment." Gail Cafferata. (PHS) 84-3364

Data Preview 18: "Private Health Insurance Coverage of the Medicare Population." (PHS) 84-3362.

Data Preview 19: "Persons with Limitations of Activity: Health Insurance, Expenditures, and Use of Services." Marc Berk, Gail Cafferata, and Michael Hagan. (PHS) 84-3363.

Data Preview 20: "Private Insurance and Public Programs: Coverage of Health Services." Pamela Farley. (PHS) 84-3374.

Data Preview 21: "Changes in Health Insurance Status: Full Year and Part Year Coverage." Daniel Walden, Gail Wilensky, and Judith Kasper. (PHS) 85-3377.

Data Preview 22: " Nonphysician Health Care Providers: Use of Ambulatory Services, Expenditures, and Sources of Payment." Marc Berk and Claudia Schur. (PHS) 86-3394.

B. Bonham, G and Corder L: National Medical Care Expenditure Survey: Household Interview Instruments. DHHS Pub. No. (PHS) 81-3280.

C. Cohen, S and Kalsbeek, W: NMCES Estimation and Sampling Variances in the Household Survey. Instruments and Procedures 2. DHHS Pub. No. (PHS) 81-3281, June 1981.

D. Division of Intramural Research: Annotated Bibliography of the National Health Care Expenditures Survey. Rockville: NCHSR, 1985.

E. Rossiter, L and Walden, D: Who Pays for Pediatric Care? Out-of-Pocket and Third Party Payments for Physician Visits. Paper presented at the American Public Health Association Meeting, November 1979.

F. Walden, D and Rossiter, L: Pediatric Care: Charges, Payments and the Medical Setting. Paper presented at the American Public Health Association Meeting, November 1979.

G. Wilensky, G, Walden, D and Kasper, J: The Changing Medicaid Population. Paper presented at the Annual Meeting of the American Statistical Association, Houston, Texas, August 1980.

H. Cafferata, G and Kasper, J: Family Structure and Children's Use of Ambulatory Physician Services. Medical Care. Vol. 23, No. 4, April 1985.

I. Farley, P, Cafferata, G and Berk M: Outpatient Use of Hospitals by the Poor and Uninsured. Paper presented at the Annual Meeting of the American Public Health Association, Washington, D.C., November 1985.

* All of the above publications can be ordered from NCHSR, Publications and Information Branch, Room 1-46, Park Building, 5600 Fishers Lane, Rockville, MD 20857, (301)443-4100.

-- FOR NMCES SUMMARY, SEE PAGE 66 --

NATIONAL MEDICAL CARE UTILIZATION AND EXPENDITURE SURVEY (NMCUES) - #14

SPONSOR

National Center for Health Statistics and the Health Care Financing Administration, DHHS

PURPOSE

The NMCUES is a national survey of illness, health care utilization, expenditures, sources of payment and insurance coverage collected from a sample of the U.S. civilian noninstitutionalized population during 1980. It is the seventh survey on national health care utilization and expenditures that has been conducted since 1953. NMCUES data were obtained from three sources:

- A randomly selected national household sample of approximately 17,000 people;
- A randomly selected 4-state Medicaid household sample panel (California, Michigan, Texas and New York) of about 13,400 people;
- A survey of Medicare and Medicaid administrative records to verify eligibility status, utilization patterns, and reimbursement.

A series of 5 in-person and telephone interviews spaced over a 15-month period was conducted at each household.

SURVEY DESIGN

A multi-stage probability sampling procedure and five mutually exclusive samples from the Research Triangle Institute and the National Opinion Research Center were used. Data were obtained in 5 rounds of in-person and telephone interviews, conducted at 3-month intervals in 1980 and 1981. NMCUES is based on the 1977 National Medical Care Expenditure Survey and the National Health Interview Survey. See Publications for more detail on the sample design.

KEY WORDS
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Activities of daily living; acute disease; ambulatory care (utilization); attitude to health; chronic disease; dental care (utilization); deductibles and coinsurance; diagnosis (classification); diagnostic tests, routine; disability evaluation; drugs (prescription); emergency service, hospital (utilization); equipment and supplies (utilization); expenditures, health; fees and charges; financing, government; health manpower (utilization); health services accessibility; hospitalization; insurance, health; outpatient clinics (utilization); physician (utilization); preventive health services (utilization); professional practice; signs and symptoms; specialties; surgery, operative

CONTENT SUMMARY
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1. **Demographic** information is collected on individual persons and families including: age, sex, race, ethnic origin, education, veteran status, employment, income, geographic area, family size and composition, marital status, and public assistance status.

2. **Risk Factors** NA

3. **Health Status** information covers condition associated with and reason for each visit, including acute and chronic conditions, and perceived health status.

4. **Severity of Illness** information includes limitation of activity, restricted activity days, bed disability days, and work loss days.

5. **Health Services Utilization** information is collected on each contact with a provider of health services as well as the services delivered during each visit including hospital inpatient stays, hospital outpatient, emergency room visits, other medical provider visits (physician's office, clinic), laboratory, prescription medicines, and other medical services (eyeglasses, orthopedic items, hearing aids, diabetic items, ambulance service).

6. **Delivery System Characteristics** include information on usual source of medical and dental care, kind and location of place, and convenience of care.

7. **Health Care Expenditures** information is collected on individual and total charges and out-of-pocket payments for all types of health care provided, including flat fees (single charge covering multiple visits and/or services), care for which there was no charge (free from provider), hospital charges separate from inpatient physician and miscellaneous inpatient charges, and other health-related charges. Premium or health plan payment information is also collected. Health insurance reimbursements for provider visits, hospitalizations, prescriptions and other medical services and supplies are linked to the specific visit or charge.

8. **Source of Payment/Health Insurance Coverage** information is collected on the third party payer(s), the health insurance benefits offered under the plan, and reasons for lack of insurance coverage.

9. **Other Special Features** information includes unmet needs, including reasons for not seeing a doctor and overt barriers to care experienced by persons covered by Medicaid.

CHILD POPULATION SURVEYED
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Over 5,000 children and youth were surveyed. Published data are available for children under 19 and in various subgroups. Data tapes provide individual ages.

FREQUENCY
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One-time survey conducted in 1980. (Note: The National Medical Care Expenditure Survey was conducted in 1977 and the National Medical Expenditure Survey will be conducted in 1987. The 1987 NMES will include a component for institutionalized persons.

AVAILABILITY
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The following public use data files are available: 1) a data base with the full year of national survey data, 2) a data base with the merged Medicare and Medicaid administrative records and survey data (for release in 1986), and 3) a data base with families as the unit of analysis (for release in 1986). These can be purchased at a cost of $425 from the National Technical Information Service (NTIS). Data Tape Users Memos have been prepared by NCHS (see Publications).

CONTACT
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TOPIC AREAS
===========

1. **Demographics**

   A. Age

   B. Sex

   C. Race (American Indian or Alaskan Native, Asian or Pacific Islander, Black, White, Other--5 Racial Groups) and ethnicity (Hispanic--8 Groups)

   D. Marital status

   E. Family size and composition

   F. Education

   G. Employment (for persons 14 and over)

   H. Income (individual dollars; also poverty threshold data)

   I. Geographic Area (region, SMSA, 4 states)

   J. Public assistance status

2. **Risk Factors** NA

3. **Health Status**

   A. Presence or absence of condition during interview

      i. Acute condition
         a. Selected diagnoses (ICD-9 as modified by NHIS)
      ii. Chronic condition
         a. Selected diagnoses (ICD-9 as modified by NHIS)

   B. Condition associated with each visit

      i. Selected diagnoses (ICD-9 as modified by NHIS)

   C. Reason for visit (diagnosis or treatment, general check-up, eye exam, immunization, family planning, other)

   D. Perceived health status (excellent, good, fair, poor)

4. **Severity of Illness**

   A. Limitation of activity (as defined by the National Health Interview Survey but not necessarily due to chronic conditions)

   B. Restricted activity days

   C. Bed disability days

   D. Work-loss days

5. **Health Services Utilization**

   A. Hospital inpatient stay (Note: Questions with * were asked for each type of health care encounter.)

      i. *Date
      ii. *Type of provider, medicine or type of other expense, location of hospital
      iii. *Services received
      iv. Operations, x-rays, lab tests, procedures performed
      v. Length of stay
      vi. *Total charges

   B. Hospital outpatient department visit/hospital clinic

      i. X-rays, lab tests, diagnostic procedures performed

C. Emergency room visit

i. Seriousness of condition
ii. Main reason for going to ER rather than other source of care (other medical care not available, best place to go for that condition, goes to ER for all or most medical care needs, other)
iii. Hospitalization following ER visit

D. Medical provider visit

i. X-rays, lab tests, diagnostic procedures performed

E. Prescribed medicine

i. Number of times obtained or refilled

F. Other medical services (eyeglasses or contacts, crutches, wheel chairs, walkers, corrective shoes or other orthopedic items, hearing aid, diabetic items, ambulance services)

6. **Delivery System Characteristics**

A. Type of provider and location of each health encounter includes hospital inpatient, hospital outpatient visit/hospital clinic, emergency room visit, physician office

B. Usual source of medical and dental care

i. Kind of place
ii. Convenience of care
iii. Reasons for not having a usual source of medical care

C. Type and specialty of physician

D. Type of allied health provider (chiropractor, podiatrist, optometrist, psychologist, social worker, nurse, physical therapist, other)

7. **Health Care Expenditures**

A. Total charge for each service or supply (amount billed, not necessarily the actual amount paid or accepted as payment by the provider) for hospital inpatient stay, hospital outpatient visit/hospital clinic, emergency room visit, medical provider visit, other medical expenses

B. Amount of payments (reported in actual dollars and cents, percent, flat fee amount, no charge, blank, flat fee questionable, not available, or not known)

C. Amount of out-of-pocket payment

D. Premium or payment for plan (per week, per month, per year not counting amount paid by any other source)

i. Any other source that pays all or part of the insurance premium

8. **Source of Payment/Health Insurance Coverage**

A. Third party payers for the total charges, hospital charges, collected separately from physician charges other health-related charges:

i. Medicaid (including type of coverage, effective date, claim number)
ii. CHAMPUS/CHAMPVA
iii. Indian Health Service or other federal health plan for American Indians or Alaska natives
iv. Coverage by any other public assistance program (name of program and person(s) covered)
v. Coverage in an insurance plan that pays only for dental care (name of plan and person(s) covered)
vi. Coverage in an insurance plan which pays, for any type of hospital bills, doctor bills, or surgeon bills (not including plans that pay only for accidents, dread disease or extra cash while in the hospital)

B. Insurance benefits for each plan listed above

i. Medicare Supplement?
ii. Does it pay any part of hospital expenses?
iii. ...pay any part of surgeon's bill?
iv. ...pay any part of doctor's bill for hospital visits?
v. ...pay any part of a dentist's bill for routine or regular dental care?

C. Time period of coverage (full/part year)

D. Main reason person not covered by health insurance plan

9. **Other Special Features**

A. Unmet needs/barriers to care

i. Barriers to care experienced by persons with a health condition who did not see a doctor or medical person
ii. Did person covered by Medicaid encounter any overt barrier because of their Medicaid coverage?

STRENGTHS FOR CHRONICALLY ILL CHILDREN

A. NMCUES (and NMCES) are the most comprehensive national financing data sources for chronically ill children including an extensive amount of demographic, health status, severity of illness, utilization, delivery characteristics, expenditures and source of payment/health insurance data.

B. NMCUES has comparable questions to the National Health Interview Survey (NHIS).

C. Historical trends can be examined using the 1977 National Medical Care Expenditure Survey (NMCES).

D. Provider visit information is collected on a range of health care providers including physicians and other allied health providers.

E. Information is collected not only on each hospitalization and each visit to a range of providers, but also on the services rendered during each visit (e.g., lab, x-rays, drug prescription).

F. Information is collected on individual and total charges and amount reimbursed by the family and other sources of payment.

G. Use of five interviews plus diaries suggests data will be more reliable than single point in time surveys (e.g., NHIS).

WEAKNESSES FOR CHRONICALLY ILL CHILDREN

A. NMCUES is a very complex data set so that quick data retrieval is not possible. Tape users should be aware of errors present on tapes. (See 6.2.0)

B. The sample of children in NMCUES is much smaller than in NMCUES (5,000 vs 13,000). Only 250 children under 21 with activity limitations were surveyed by NMCUES making analysis extremely limited, particularly if one wants to examine specific conditions or even levels of functional limitation

(particularly children with the most severe limitation of activity--LA1).

C. The data, particularly those relating to expenditures and sources of payment, are out-of-date (1980). However, it is possible to update some of the information using synthetic estimates.

D. Because public data tapes were made available in 1983, a limited number of researchers have examined the data, as compared to the 1977 NMCES data.

E. A substantial amount of expenditure information was statistically imputed (especially for hospitalization expenses).

F. Data on limitation of activity was collected differently from NHIS and was not restricted to chronic conditions.

G. It is impossible to determine the relationship between the amount of care received and the general health of children because no physical examination or other direct health measurement took place.

EXAMPLES OF PUBLISHED DATA

(This is just a sampling of the many tables available from the research reports listed under Publications.)

A. Number and percent distribution of persons visiting hospital emergency departments, by age (under 17), by perceived severity of condition (life-threatening or not life-threatening), by reason for selecting the emergency department (other care not available, best place for that condition, used for most medical care, other). (See publication listed under 6.3.0.)

B. Number and percent distribution visiting hospital outpatient departments by age (under 17), by type of service (illness-related for diagnoses or treatment; not illness-related for general check-ups, prenatal or postnatal care, other; all other.) (See publication listed under 6.3.0.)

C. Persons with at least one mental health visit and average number of visits per person by age (under 17, 17-24). (See publication listed under 6.4.0.)

D. Number of orthodontic and nonorthodontic dental visits, average charges, and expenditures by age (under 5, 5-14, 15-24 years). (See publication listed under 6.6.0.)

E. Number of people and percent of the population receiving services from selected medical practitioners by age (under 6, 6-16, 17-24). (See publication listed under 6.6.0.)

F. Number and percent of the population receiving services from chiropractors, podiatrists, and physical therapists, as estimated by the National Health Interview Survey (1963-64, 1974) and NMCUES (1980) by age (under 6, 6-16, 17-24). (See publication listed under 6.7.0.)

G. Regular source of medical care and use of medical care, U.S., 1980: children and youth ages 0-18. (See publication listed under 6.9.0.)

H. Percent of children 0-2 years of age without a medical visit in the last year by select demographic characteristics: U.S., 1980. (See publication listed under 6.9.0.)

I. Health insurance coverage, U.S., 1980: children and youth ages 0-18 years. (See publication listed under 6.9.0.)

J. Private and public health insurance coverage, U.S., 1980: children and youth ages 0-18 years. (See publication listed under 6.9.0.)

K. Total medical care charges for children and youth in the U.S.: 1980. (See publication listed under 6.9.0.)

L. Percent of total medical care charges paid out-of-pocket, U.S., 1980: children and youth ages 0-18. (See publication listed under 6.9.0.)

M. Total charges per medical visit, total out-of-pocket charges per medical visit by regular source of care and insurance coverage for children ages 0-18 years with medical visits in the last year, 1980. (See publication listed under 6.9.0.)

N. Comparison of medical care access, use and charges among insured and non-insured poor children and youth ages 0-18 years: U.S., 1980. (See publication listed under 6.9.0.)

SELECTED PUBLICATIONS

(Additional publications can be obtained from the Contact.)

A. Bonham, G: Procedures and Questionnaires of the National Medical Care Utilization and Expenditure Survey. National Medical Care and Expenditure Survey. Series A, Methodological Report No. 1, NCHS, DHHS Pub. No. (PHS) 83-20001, March 1983.

B. NMCUES Data Tape Users Memo, Memos #1, #2. (Write to Contact.)

C. Bonham, G: Dental Care Charges, United States, January-June 1980. NMCUES. Preliminary Data No.1, DHHS Pub. No. (PHS) 82-2000, April 1982.

D. Chyba, M: Utilization of Hospital Emergency and Outpatient Departments, U.S., January-June, 1980. NMCUES. Preliminary Data Report No. 2, DHHS Pub. No. (PHS) 83-2000, February 1983.

E. Dicker, M: Health Care Coverage and Insurance Premiums of Families, U.S., 1980. NMCUES Preliminary Data Report No. 3, DHHS Pub. No. (PHS) 83-2000, May 1983.

F. Howell, E, Corder, L and Dobson, A: Out-of-Pocket Health Expenses for Medicaid Recipients and Low-Income Persons, 1980. National Medical Care Utilization and Expenditure Survey. Series B, Descriptive Report No. 4, DHHS Pub. No. (PHS) 85-20204, August 1985.

G. Mugge, R: Persons Receiving Care from Selected Health Care Practitioners, United States, 1980. NMCUES. Series B, Descriptive Report No. 6, DHHS Pub. No. (PHS) 84-20206, September 1984.

H. Bryant, E and Biggar, R: Utilization and Expenditures for Ambulatory Medical Care by People Hospitalized. U.S., 1980. Series B, Descriptive Report No. 7, DHHS Pub. No. (PHS) 85-20207, April 1985.

I. Butler, J, Winter, W, Singer, J and Wenger, M: Medical Care Use and Expenditure Among U.S. Children and Youth: Analysis of a National Probability Sample. Pediatrics. Vol. 76, No. 4, October 1985.

J. Rosenbach, M: Insurance Coverage and Ambulatory Medical Care of Low-Income Children: United States, 1980. National Medical Care Utilization and Expenditure Survey. Series C. Analytical Report No. 1. DHHS Pub. No. (PHS) 85-20401, September 1985.

K. Okada, L and Williams P: Expenditures for Doctor Visits by Geographic Region, Health Insurance Coverage and Usual Source of Care: United States, 1980. Paper presented at the annual meeting of the American Public Health Association, Washington, D.C., November 20, 1985.

L. Newacheck, P and Halfon, N: The Financial Burden of Medical Care Expenses for Children. Accepted for publication in Medical Care.

-- FOR NMCUES SUMMARY, SEE PAGE 69 --

NATIONAL NATALITY SURVEY and NATIONAL FETAL MORTALITY SURVEY (NNS/NFMS) - #15

SPONSOR

National Center for Health Statistics (NCHS), DHHS. Seven Public Health Service agencies along with the NCHS collaborated in designing, funding and analyzing these surveys.

PURPOSE

The NNS/NFMS have been developed to expand the data available in the natality and fetal mortality registration systems, to evaluate the quality of the data on birth certificates and fetal death certificates, and to make national estimates of variables not available on these fetal death certificates. The NNS/NFMS are called follow-back surveys because they follow-back (by mail or telephone) one or more informants identified on the vital record. Data for these two follow-back surveys include social, demographic, maternal and infant health characteristics that are collected from the Certificate of Live Birth or the Report of Fetal Death and mailed questionnaires. These questionnaires are mailed to one or more informants: the mother, attendant at delivery, or medical provider(s), and hospital identified on the vital record. For out-of-wedlock deliveries questionnaires were sent to medical sources, but not to the mothers.

SURVEY DESIGN

The most recent survey -- the 1980 NNS, based on a total sample of 9,941 live births, can be weighted to reflect United States estimates of 3,612,258 live births. Low birthweight records were sampled at four times their rate in the population, producing a sub-sample of approximately 2,200 low birthweight babies. Unmarried mothers were not sent questionnaires due to concerns about confidentiality in some states. However, information on births to both married and unmarried women are included.

The 1980 NFMS was a survey of late fetal deaths based on a probability sample of registered fetal deaths of 28 weeks or more gestation, or 1,000 grams or more for the U.S., excluding Michigan. The final sample included 6,386 late fetal deaths representing a 1-in-3 sample of the estimated 19,202 late fetal deaths in 1980.

New topics added to the 1980 NNS survey include smoking and drinking during pregnancy, parent's occupation and type of industry, exposure to ultrasound and nuclear medicine during pregnancy, induction of labor, electronic fetal monitoring, and fetal scalp blood sampling. Data on Hispanics for each of these topics were also obtained for the first time.

The 1988 National Maternal and Infant Health Survey (NMIHS) will follow-back informants on natality, fetal mortality and infant mortality vital records. The live births component based on 10,000 Certificates of Live Birth will be the equivalent of a 1988 NNS; the fetal death component based on 6,000 Reports of Fetal Death will be the equivalent of a 1988 NFMS; and the infant mortality component, based on 4,000 Death Certificates of infants, will be the equivalent of a 1988 National Infant Mortality Survey (NIMS). The ability to conduct these three surveys depends upon obtaining funding from the Public Health Service and federal agencies and private organizations. Mailed questionnaires and telephone interviews with married and unmarried mothers, hospitals where the deliveries occurred, and attendants-at-delivery and certifiers of death are being planned to expand information about vital events. Additional follow-ups with mothers of live births at intervals of one year, two years, etc. are being contemplated to assess child health in relation to birth circumstances. Data collection instruments will be improved versions of the 1980 NNS/NFMS.

Tentative plans are being made for the 1988 NHIMS to collect additional information on obstetrical care (delivery components of care, combinations of interventions for high-risk women and content of care); barriers and facilitators of care (transportation, child care services, cost, medical providers who accept Medicaid); and source of payment (for mothers and infants via the UB-82 reporting form).

KEY WORDS

Abnormalities (congenital); alcohol drinking; birth injuries[1]; birth weight; contraception; delivery; diagnosis (classification); diagnostic tests, routine; environmental pollutants (exposure)[1]; family planning; fertility; fetal death[2]; gestational age; hospitalization; infant mortality; infant, premature; labor complications; nutrition; post-natal care; pregnancy; pregnancy complications; prenatal care; radiations (exposure); smoking; sterilization, tubal; substance use disorders

CONTENT SUMMARY
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1. **Demographic** information is collected on the mother's/father's age, mother's/ father's race, mother's/father's national origin, mother's marital status, mother's/father's school attendance, family income, residence by state, mother's/father's employment status, mother's employment during pregnancy, type of occupation including type of industry, mother's/father's employment.

2. **Risk Factor** information is collected on potential exposure to radiation, mother's/father's exposure to chemicals used to kill insects, rodents, weeds or fungi, other health risk behavior includes mother's use of alcoholic beverages, use of caffeinated coffee or tea, use of aspirin during pregnancy, smoking before and during pregnancy, use of medical x-rays and ultrasound during pregnancy, birth intervals, and infant breastfed or bottle fed (formula). (For the NFMS the following additional variables were collected on the fetus: sex, race, date and time - before labor, during labor or delivery -of death.)

3. **Health status** information for mother includes: outcome of all previous pregnancies (live birth, miscarriage, stillbirth, abortion), wantedness of pregnancy, maternal weight gain during pregnancy, presence of medical conditions during pregnancy (16 conditions identified), complications of pregnancy and labor, total duration of labor, complications to mother's health after delivery, and post-partum sterilization. Health status information for infant includes: gestational age of liveborn or stillborn infant, health characteristics at birth (14 characteristics included), congenital malformations or anomalies noted before discharge, birth injuries, birth weight, low birth weight (under 2 1/2 lbs. with birth weight distribution), respiratory distress syndrome, infant jaundice, and APGAR score at 1 and 5 minutes.

4. **Severity of Illness** NA

5. **Health Services Utilization** information includes use of prenatal care with date of visit; lowest blood pressure reading and urine protein test results; use of hemoglobin test and results, whether mother advised to use diuretics, to restrict salt intake, to use vitamin-mineral supplement, to use a calorically- restricted diet; use of four prenatal diagnostic techniques: amniocentesis, ultra-sound,

x-rays, and electronic fetal monitoring; drug or surgical procedure to induce or maintain labor; type of anesthesia used; type of delivery: spontaneous, forceps, primary or repeat cesarean, breech, other; unusual resuscitative efforts; phototherapy for neonatal jaundice; age when baby first examined outside delivery room; postpartum visit(s) to doctor, clinic or hospital after delivery, birth control method used after delivery; and where obtained birth control method, sterilization.

6. **Delivery Systems Characteristics** NA

7. **Health Care Expenditures** NA

8. **Source of Payment/Health Insurance Coverage** NA

9. **Other Special Features** NA

CHILD POPULATION SURVEYED

For the NNS, newborns included a sample of 9,941 live birth records including births to 1,550 women ages 15-20.

FREQUENCY

The NNS survey was previously conducted in 1963, 1964-66, 1967-69, 1972, and 1980. The most recent year for which data are available is 1980. The NFMS was first done in 1980. The next survey will be conducted in 1988.

AVAILABILITY

The follow-back survey data are released through the Vital and Statistics series reports, supplements to the Monthly Vital Statistics Report, and public use data tapes as the data become available. Series reports issued prior to 1975 were published in Series 22, "Data from the National Natality and Fetal Mortality Surveys." Since 1975 reports from these sample surveys based on vital records have been included in Series 21, "Data on Natality, Marriage, and Divorce."

Public use data tapes from the 1980 NNS, NFMS and previous surveys are for sale for $140 from the National Technical Information Service. Diskettes of subsamples of the 1980 NNS/NFMS will be available in July 1986. The 1980 NNS diskette will have about 1,000 of the 9,941 births in the NNS with revised caseweights so that national estimates can still be made. The 1980 NFMS diskette will be similarly constructed. The cost is $80 for each of

the two diskette sets. Also available is an unabbreviated mainframe NNS/NFMS for $75.

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Sociometrics/Adolescent Pregnancy Archive
3191 Cowper Street
Palo Alto, CA 94306
415-321-6746

CONTACT

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National Center for Health Statistics
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TOPIC AREAS

1. **Demographics**

   A. Mother's/father's age

   B. Mother's/father's race[3] (White, Black, American Indian or Alaskan Native, Asian or Pacific Islander)

   C. Mother's/father's national origin[3] (German, Italian, Irish, French, Polish, Russian, English, Scot, Welsh, Puerto Rican, Cuban, Mexicano, Chicano, Mexican American, Other Spanish: Spain/Hispanic/ Other Latin American, African, Black Negro, American Indian or Alaskan Native, Asian or Pacific Islander, Other)

   D. Mother's marital status and history[3]

   E. Mother's/father's employment status[3] and length of time worked during pregnancy

   F. Mother's/father's school enrollment during pregnancy[3]

   G. Mother's residence (state, region, SMSA)

   H. Mother's/father's total annual income with sources of income[3]

   I. Mother's/father's educational level

   J. Characteristics of the fetus

      i. Sex
      ii. Race
      iii. Number of siblings and age
      iv. Time of delivery (hour of day, day of week)

v. Time of death (before labor, during labor, during delivery)[2]

2. **Risk Factors**

A. Health risk behavior before and during pregnancy

i. Mother's smoking history - how many and type of cigarettes smoked before, found out pregnant, after found out pregnant[2]
ii. Mother's drinking history -drink alcoholic beverages (beer, wine or liquor) during 12 months before delivery, frequency and amount per day of drinking before and during pregnancy[3]
iii. Mother's caffeine use - number of cups per day of coffee and/or tea with caffeine during pregnancy.[3]
iv. Mother's aspirin use - number of aspirin tablets taken per month during pregnancy[3]
v. Mother's/father's type of occupation including type of industry[3]
vi. Mother's/father's exposure to radiation on the job[3]
vii. Mother's/father's exposure to chemicals used to kill insects, rodents, weeds, or fungi[3]
viii. Birth intervals
ix. Infant breast fed or bottle fed (formula)[3]

3. **Health Status**

A. Mother's obstetrical history

i. Number of live births
ii. Number of children still living
iii. Number of spontaneous and induced abortions

B. Mother's/father's height[3]

C. Mother's pre-pregnant weight

D. Father's weight[3]

E. Underlying medical conditions or problems of mother existing during pregnancy

i. Congenital heart disease
ii. Varicosity
iii. Obesity
iv. Anemia
v. Rh incompatibility
vi. Diabetes
vii. Thyroid condition
viii. Cardiovascular-renal disease
ix. Asthma
x. Other chronic pulmonary

xi. Orthopedic condition
xii. Sickle cell anemia
xiii. Alcoholism
xiv. Other drug abuse
xv. Other
xvi. None

F. Complications/characteristics of pregnancy

i. Weight gain during pregnancy
ii. Urinary infection
iii. Anemia
iv. Obesity
v. Hypertension
vi. Toxemia preeclampsia
vii. Rubella
viii. Eclampsia
ix. Embolism
x. Abnormal position of cord or placenta
xi. Other
xii. None

G. Complications/characteristics of labor

i. Total duration of labor
ii. Inadequate pelvis
iii. Multiple birth
iv. Premature rupture of membranes
v. Unusual bleeding or hemorrhage
vi. Prolonged labor
vii. Abruptio placentae
viii. Abnormal position of cord or placenta
ix. Hypertension
x. Toxemia preeclampsia
xi. Transverse lie
xii. Anesthesia reaction
xiii. Eclampsia
xiv. Embolism
xv. Other
xvi. None

H. Infant Characteristics

i. Fetal death[2]
ii. Weight at delivery
iii. Length
iv. Apgar score at 1 minute and 5 minutes[1]
v. Length of gestation, under 20 weeks to 42 weeks and over
vi. Congenital malformations or anomalies noted at delivery by hospital which include: joint anomalies, abnormal palmer creases, low placental weight, microcephaly, midfacial hypoplasia, epicanthal folds, short palpebral fissures, congenital anomalies, elongated phitrum, cardiac mur-

murs, thin upper lip, microphthalmia, ocular ptosis, anteverted nostrils, other (specify)
vii. Unusual resuscitative efforts required
viii. Any birth injuries noted before discharge[1]
ix. Any other illnesses noted before discharge[1]

I. Other

i. Wantedness of pregnancy
ii. Any complications to the woman's health noted after delivery

4. **Severity of Illness** NA

5. **Health Services Utilization**

A. Prenatal care

i. Use of prenatal care with dates of visits
ii. Start at first, second or third trimester, none
iii. Use of four prenatal diagnostic techniques of amniocentesis, ultrasound, x-rays, and electronic fetal monitoring
iv. Hematocrit value(s) obtained and date
v. Hemoglobin level obtained and date
vi. Advised to use diuretics, restrict salt intake, use a vitamin-mineral supplement, use a calorically-restricted diet
vii. Lowest blood pressure reading and results of test for urine protein at visit

B. Delivery

i. Type of anesthesia used: inhalation, spinal and/or epidural, local, other
ii. Surgical procedure used to induce or maintain labor includes prostatglandin, rupture of membranes, pitocin drip, saline injection, ergot, other
iii. Type of delivery: normal, spontaneous, forceps, primary cesarean section, repeat cesarean section, breech, other

C. Newborn care

i. Age when baby was first examined outside delivery room, less than 2 hours, 2-6 hours, 7-23 hours, 24 hours or more, no hospital delivery[1]
ii. Phototherapy for neonatal jaundice[1]
iii. Exchange transfusion done[1]

D. Postpartum care

i. Date of first postpartum visit

E. Birth control

i. First birth control used after delivery: none, pill, IUD, diaphragm, sterilization of mother, sterilization of father, condom, foam, other[3]

ii. Where birth control method was obtained: hospital before discharge, hospital after discharge, physician's office, family planning clinic, drugstore w/o prescription, other place, no birth control used[3]

iii. Surgical sterilization: type, reason

6. **Delivery System Characteristics** NA

7. **Health Care Expenditures** NA

8. **Sources of Payment/Health Insurance Coverage** NA

9. **Other Special Features** NA

STRENGTHS OF NNS FOR CHRONICALLY ILL CHILDREN

A. NNS is the first nationally representative survey to provide detailed information on prenatal and delivery practices for mothers with live births. Use of prenatal care is linked by pregnancy outcome, employment status, age, and other factors.

B. Selected newborn conditions, including data on type of congenital anomalies, birth injuries, low birthweight, respiratory distress syndrome and infant jaundice are available and can be linked to a range of risk factors and utilization patterns.

C. Low birthweight births were over-sampled so that trends in maternal and infant health associated with low birthweight are available. Researchers are currently trying to link data with the 1980-81 National Death Index (NDI) to produce a comprehensive infant mortality data set within the 1980 NNS.

D. Data from the NNS has been analyzed extensively by NCHS staff and others. Specific research topics analyzed include maternal smoking and drinking habits before and during pregnancy, employment characteristics of pregnant women, variation in use of obstetric technology, maternal and infant characteristics associated with cesarean section delivery, infant health consequences of childbearing by teenagers and older mothers, trends in maternal and infant health factors associated with low infant birthweight. (See publication under 6.0.0 for a partial listing.)

E. Trend analysis is possible because of the comparability of data items in the 1980 survey with items in the 1963, 1964-66, 1967-69 and 1972 surveys.

F. States can use the NNS to produce state and county estimates for a variety of maternal and infant characteristics through synthetic estimation procedures and to evaluate vital registration data. Some of these characteristics include the number of infants with jaundice, number of infants with congenital anomalies, low birth weight, number of fetal deaths by social and demographic characteristics. (See publication under 6.6.0 for the paper on this subject.)

G. For 1988, the NNS staff is considering a series of state and county synthetic estimates in an automated system for states and counties with at least 50 births that will include 25 important characteristics.

H. The 1980 NNS/NFMS data were recently merged with American Hospital Association (AHA) data so that hospital characteristics can be analyzed in relation to birth characteristics. However, the AHA data are not part of the public use data tape. (See publication below under E for the paper on this research project.)

I. The NNS is one of the most extensive data sets on maternal risk factors.

J. The State of Utah is analyzing the NNS data tape to generate synthetic estimates for several characteristics that include fetal monitoring, ultrasound, maternal smoking, breastfeeding and maternal poverty status. (A paper entitled "Estimates for Utah from the 1980 Natality Survey/National Fetal Mortality Survey," by John Brockert, Sigrid Peterson, and Barry Nangle was presented at the 1985 Joint Statistical Meetings, Las Vegas in August, 1985.)

K. The State of New York is analyzing the NNS data tape to assess the quality of selected items on the Live Birth Certificate which are thought to be underreported, i.e., congenital malformations, complications of labor and delivery and fetal monitoring. (A paper entitled "Using the National Natality Survey as a Tool for Vital Records Management Improvements" by Gene D. Therriault, and Peter Herzfeld of the New York State Department of Health was presented at the Southern Regional Demographic Group Meetings in October 1985 in Austin, Texas.)

WEAKNESSES FOR CHRONICALLY ILL CHILDREN

A. No information is collected on severity of illness, delivery system characteristics, expenditures and source of payment/health insurance coverage.

B. Unmarried mothers are not included limiting the generalizability of the demographic, risk factor, health status, and utilization findings.

C. Hospitals were asked only whether the infant was discharged dead soon after delivery (no time period given). Subsequent infant hospitalizations which might result in death or additional treatment were not included.

D. Data on Hispanics are included for the first time in the 1980 survey so that comparisons with previous NNS surveys are not possible.

E. No specific conditions are asked in the questions on "birth injuries" or "illnesses noted in infant before discharge" so its impossible to draw any incidence or prevalence estimates.

AVAILABILITY OF PUBLISHED DATA

(This is a just a sampling of the many tables available from the research reports listed under Publications.)

A. Estimated total married women according to employment status and pregnancy outcome:[4] United States, 1980. (See publication listed below under C.)

B. Married women employed at any time during the 12 months before delivery, according to industry and pregnancy outcome,[4] United States, 1980. (See publication listed below under C.

C. Demographic characteristics of married women according to employment status and pregnancy outcome,[4] United States, 1980. (Demographic characteristics include age, race, education, total family income). (See publication listed below under C.)

D. Reproductive characteristics (prenatal care: early 1-2 months late, 3 months or later, or none), according to employment status and pregnancy outcome,[4] United States, 1980. (See publication listed below under C.)

E. Percentage of live hospital births weighing less than 2,500 grams by selected maternal and infant health characteristics[5] and period of gestation, United States 1972 and 1980. (See publication listed below under A.)

F. Outcome of first births in terms of 3 infant health measures for mothers under 20 years (fetal losses per 1,000 births, percent of infants weighing less 2,500 grams, percent of infants with 1-minute Apgar scores less than 7), according to marital status at conception and birth; and trimester of pregnancy prenatal care began, United States, 1980. (See publication listed below under D.)

PUBLICATIONS

(Because of the magnitude of publications from this survey, the following list is only a sampling. Additional publication lists can be obtained from the Division of Vital Statistics, NCHS.)

A. Hutchins, Kessel, Placek: Trends in Maternal and Infant Health Factors Associated with Low Infant Birth Weight United States, 1972 and 1980. Public Health Reports. (99)(2), 162-172.

B. Prager, Malin, Graves: Maternal Smoking and Drinking Behavior Before and During Pregnancy. In Health, United States: 1983. DHHS Pub.No.(PHS) 84-1232, Hyattsville, MD: National Center for Health Statistics, Dec. 1983.

C. Shilling, and Lalich: Maternal Occupation and Industry and Pregnancy Outcome of U.S. Married Women, 1980. Public Health Reports. (99)(2). March-April 1984, 152-161.

D. Ventura, S and Hendershot, G: Infant Health Consequences of Childbearing by Teenagers and Older Mothers. Public Health Reports. (99)(2): March-April 1984, 138-145.

E. Hutchins, Koontz, Keppel: Fetal, Perinatal and Neonatal Death Rates According to Hospital, Maternal, and Infant Characteristics[5]: United States, 1980. Paper presented at Joint Statistical Meetings, Las Vegas, 1985.

F. Heuser, Keppel, Witt: State Uses of Followback Survey Data., Paper presented at the Annual Meeting of the Association for Vital Records and Health Statistics, Niagara Falls, NY, July 9-12, 1984.

G. Kessel, Placek, Keppel: Towards a Perinatal Audit System Using the 1980 National Natality Survey/National Death Index. Paper presented at the American Public Health Association Meeting, Washington, D.C., November 1985.

Note: NCHS maintains a NNS/NFMS Analysts Group list identifying the data interests of persons who author NNS/NFMS papers, oversee the program or have the public use data tape. Also maintained is a list of Reports, Papers and Publications Using the 1980 NNS/NFMS. For further information contact Paul Placek or Ken Keppel.

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[1] NNS only.
[2] NFMS only.
[3] In-wedlock births only.
[4] Pregnancy outcome refers to live birth, low birth weight infant, infant with malformation, fetal death.

[5] Infant health characteristics include congenital malformations or anomalies noted at delivery by hospital, unusual resuscitative efforts required, Apgar score (0-10) after one minute, after five minutes, age when first examined outside delivery room, birth injuries noted before discharge from hospital, other illnesses noted before discharge, infant discharged alive.

-- FOR NNS/NFMS SUMMARY, SEE PAGE 72 --

SAMPLE SURVEY OF STATE AND COUNTY MENTAL HOSPITAL INPATIENT ADMISSIONS (Sample) - #16

SPONSOR

National Institute of Mental Health, DHHS

PURPOSE

This is a sample survey of patients admitted to the inpatient services of state and county mental hospitals located in all 50 states and the District of Columbia. Excluded are other public psychiatric inpatient services, i.e., VA medical centers, military hospitals, Public Health Service hospitals and territorial hospitals. Diagnostic data are coded by the primary mental disorder according to the International Classification of Diseases, 9th Division, Clinical Modification (ICD-9-CM) and the Diagnostic and Statistical Manual of Mental Disorders, Third Edition (DMS-III).

SURVEY DESIGN

A two-stage stratified sample was used. The sampling universe for the survey consisted of all hospitals reported in the 1979 NIMH Inventory of Mental Health Facilities. The caseload data on admissions formed the basis for the stratification of state and county mental hospital inpatient services. In 1980, the survey provided data for a sample of 4,867 inpatient admissions or 1.4% of approximately 349,000 admissions reported annually in the 274 known state and county mental hospitals in the U.S.. In the 1980 survey, hospitals identified as having a large portion of Native Americans were over-sampled to obtain more data on this population group. Data were collected by hospital staff from patient medical records at the time of admission and 3 months following admission. The response rate was 92% of the 169 hospitals selected and 100% of the patients.

For the last two surveys, 1975 and 1980, a 3-month follow-up survey was conducted to determine patient status, types of treatment received, type of referral on discharge, final diagnosis, length of stay and expected or actual source of payment. In 1986, the survey will be changed to obtain data from those patients who are admissions, those under care, and those discharged under care.

KEY WORDS

Behavior disorders (child); counseling; chronic disease; diagnosis (classification); diagnostic tests, routine; financing, government; follow-up care; hospitalization; insurance, health; mental disorders; mental health services (utilization); substance use disorders.

CONTENT SUMMARY

1. Demographic information is collected on age, sex, race and Hispanic origin, marital status, geographic area, education, public assistance status and legal status.

2. **Risk Factors** NA

3. **Health Status** information covers primary psychiatric diagnosis at discharge or at time of report and patient status at time of 3 month follow-up survey.

4. **Severity of Illness** NA

5. **Health Services Utilization** information covers admissions (new and readmissions), prior mental health care ever received, referral source, referral upon discharge (inpatient care, other referrals), and type of services received by patient during hospital stay (14 categories).

6. **Delivery System Characteristics** NA

7. **Health Care Expenditures** NA

8. **Source of Payment/Health Insurance Coverage** information is collected on the expected or actual source of payment.

9. **Other Special Features** NA

CHILD POPULATION SURVEYED

In 1980, the total number of admissions was 369,049; 16,612 were under 18 or 4.5% of the total admissions. Data tapes provide individual ages.

FREQUENCY

This survey has been conducted periodically since 1969.

AVAILABILITY

The most recent data available are from 1980. Data are available to purchase for years 1969, 1970, 1972, 1975, and 1980 by special request only. A data tape must be provided.

CONTACT

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TOPIC AREAS

1. **Demographics**

   A. Age

   B. Sex

   C. Race (Black, White, American Indian or Alaskan Native, Asian or Pacific Islanders)

   D. Hispanic origin (Puerto Rican, Cuban, Mexican, Central or South American or other Spanish origin or descent)

   E. Marital status

   F. Geographic are (region)

   G. Education (highest grade completed)

   H. Legal status includes three main categories: voluntary, involuntary-noncriminal, involuntary-criminal

   I. Public assistance status

2. **Risk Factors** NA

3. **Health Status**

   A. Primary psychiatric diagnosis at discharge or at time of report

   B. Patient status includes 3 month follow-up to determine whether patient is still in treatment, what type of treatment is needed, and if discharged, died or transferred.

4. **Severity of Illness** NA

5. **Health Services Utilization**

   A. State and county mental hospitals

      i. Admissions (new and readmissions)

ii. Type of mental health services received by patient during hospital stay (14 categories): individual therapy, family/couple therapy, group therapy, drug therapy, electroconvulsive therapy, detoxification, psycho-surgery, self/care skill training, social skill training, activity therapies, vocational training and habilitation, education, no psychiatric treatment rendered, other.

B. Other mental health care

i. Prior inpatient and noninpatient mental health care ever received (14 categories): Inpatient at this hospital, other state or county mental hospital, private psychiatric hospital, general hospital separate inpatient psychiatric unit, alcohol detoxification or residential treatment facility, drug detoxification or drug abuse treatment facility, other patient care. Noninpatient: at this hospital, partial care program, outpatient psychiatric service or clinic, private practice mental health professional, alcohol treatment facility, outpatient care, drug abuse treatment facility outpatient care, other noninpatient care. Additional categories include: no prior mental health care and prior mental health care unknown.

C. Referral status

i. Referral upon discharge (18 categories) Inpatient care: other state or county mental hospital, other inpatient psychiatric facility, alcohol detoxification or residential treatment facility, drug detoxification or drug abuse treatment facility, nursing home, extended care facility, other inpatient or residential care. Other referrals: partial care program, outpatient psychiatric service of hospital, other outpatient psychiatric clinic or service, private psychiatrist, other physician, court-for adjudication regarding criminal proceeding, court-for adjudication regarding civil commitment, return to penal/correctional institution, alcohol treatment facility: outpatient care, drug abuse treatment facility: outpatient care, other, non referral -returned to community.

D. Referral source

i. Referral source (13 categories): self, family or friend, police (except court or correction agency), court or correction agency, private psychiatrist, other physician, state or county mental hospital, outpatient psychiatric clinic or

service, federally funded CMHC, alcohol treatment facility, drug abuse treatment facility, other inpatient psychiatric service, other.

6. **Delivery System Characteristics** NA

7. **Health Care Expenditures** NA

8. **Source of Payment/Health Insurance Coverage**

   A. Expected or actual principal source of payment includes the following: no fee payment (program absorbed costs), personal resources (direct patient payment), Medicare, other health insurance (commercial), Medicaid, social service funds, VA, CHAMPUS, other source.

9. **Other Special Features** NA

STRENGTHS FOR CHRONICALLY ILL CHILDREN

A. The Sample Survey provides one of the few sources of periodic information on mental health services utilization, on mental health care ever received, and type of services obtained for patients in state and county mental hospitals.

B. It is the only NIMH national survey that provides data on source of payment/health insurance coverage.

C. The 3 month 1980 follow-up survey provides information on patient movement throughout the mental health care system.

WEAKNESSES FOR CHRONICALLY ILL CHILDREN

A. No information is collected on risk factors, severity of illness, delivery system characteristics, and health care expenditures.

B. For many moderate and severe mental conditions, the survey data are statistically unreliable because of the small sample size of hospitalized children.

C. The questions on source of payment/health insurance coverage are not the same as collected in the National Hospital Discharge Survey or NMCUES, making comparisons more complicated. However, they are the same as required in the Uniform Hospital Discharge Data Set.

AVAILABILITY OF PUBLISHED DATA

Several relevant data tables from this survey are available in Mental Health, United States, 1985 and are described below.

A. Number, percent distribution, and rate per 100,000 civilian population of admission to state and county mental hospital inpatient services, by race, sex and age (under 18): United States, 1980.

B. Median days of stay in inpatient service for admissions by age (under 18) and type of inpatient psychiatric service: United States, 1980.

PUBLICATIONS

A. Taube, C and Barrett, S (eds): Mental Health, United States 1985. DHHS Pub. No. (ADM) 85-1378. Rockville, MD: National Institute of Mental Health, 1985.

B. Use of Inpatient Psychiatric Services by Children and Youth under 18, United States, 1980. Mental Health Statistical Note, Survey and Reports Branch, Division of Biometry and Applied Sciences, National Institute of Mental Health.

-- FOR SAMPLE SUMMARY, SEE PAGE *74* --

SURVEY OF INCOME AND PROGRAM PARTICIPATION (SIPP) - #17

SPONSOR

Bureau of Census, Department of Commerce

PURPOSE

This nationally representative household survey is a major source of information on all sources of cash and noncash income, eligibility, and participation in various government transfer programs, disability, labor force status, assets and liabilities, pension coverage, and taxes for persons and families in the United States. Although it was not developed as a health survey, it provides important information on health insurance coverage, disability, and health services utilization. In the 1984 SIPP, health, education, work history, and disability questions were included as supplemental questions in a topical module. Questions on long-term physical and mental conditions which limit activity were asked for each household member and for each child ages 5-18.

SIPP was developed to expand the limited source of information currently available on household and personal income: the March Income Supplement of the Current Population Survey (CPS). Some of the limitations of the CPS include: 1) underestimates on the income from transfer programs, retirement and disability income, unemployment compensation, and property income, and 2) insufficient categorical information to produce sound estimates of program eligibility.

SURVEY DESIGN

Following survey development, the Income Survey Development Program (ISDP) was conducted in 1979-1981 to prepare for SIPP. The SIPP was started in October 1983 with a multi-stage stratified sample of 21,000 designated households of the U.S. civilian noninstitutionalized population. It is a panel design longitudinal survey with 21,000 households in the initial sample and slightly smaller samples thereafter. For the core questions of the survey, each person who is a household member, 15 and over at the time of the first interview, is interviewed once every four months for 2 1/2 years, resulting in eight interviews per household. (If household members move, they are followed to their new address.) Supplementary questions are included during selected household visits, not on a continual basis. The final interview will be conducted in August 1986.

In February 1985, a new smaller sample of about 15,000 households was introduced. Combining the 1984 sample households and the 1985 sample households allows cross-sectional estimates to be produced from a larger sample. Each February thereafter, a new sample of approximately the same size of 15,000 households is scheduled to begin interviewing. Each annual sample will be interviewed for approximately 2 1/2 years.

KEY WORDS

Activities of daily living; alcohol drinking; ambulatory care (utilization); attitude to health; chronic disease; diagnosis (classification); disability evaluation; expenditures, health; financing, government; health facilities; hospitalization; insurance, health; mental disorders; physician (utilization); professional practice; substance use disorders.

CONTENT SUMMARY

1. **Demographic** information is collected on age, sex, race, ethnic origin, marital status, geographic area, number of children, family size, employment status, occupation, income, education, and public assistance status.

2. **Risk Factors** NA

3. **Health Status** information covers prevalence of health condition and perceived health status.

4. **Severity of Illness** information is collected for each child 15 and over and includes limitation of activity by type of activity (able/not able to do--15 activities); bed disability; in addition, for 5-17 year-old children, questions were asked about long-term limiting physical, emotional or mental conditions and about these childrens' ability to attend school. School disability includes ability to learn or do regular school work, ability to attend a regular school, and ability to walk, run, or play.

5. **Health Services Utilization** information is collected on hospitalization for children 15 and over; and medical doctor or qualified assistant visits.

6. **Delivery System Characteristics** information includes usual source/site of care.

7. **Health Care Expenditures** information covers reimbursement for doctor visits, and amount of insurance paid for by employer or union.

8. **Source of Payment/Health Insurance Coverage** information is collected on third party payer, type of plan, and time period of insurance coverage for individual and family members (including children under 18), reasons for lack of insurance coverage, reasons stopped being covered by health insurance, and attempt to find other insurance and reason for not finding.

9. **Other Special Features** includes use of helper to aid person with health condition.

CHILD POPULATION SURVEYED

In the core survey only people ages 15 and over are interviewed. However, information about health care insurance coverage is gathered for all household members. In the topical module on health and disability, information was collected on children ages 5-18. In the first interview schedule, approximately 13,000 children under the age of 18 were included.

FREQUENCY

This survey started in October 1983. Each household will be interviewed once every four months for 2 1/2 years, resulting in eight interviews per household. Each February a new sample is introduced and interviewed for about 2 1/2 years as well.

AVAILABILITY

Public use data tapes for the core survey are available for each interview wave for approximately one year after the close of data collection for the wave. Some data from 1985 is now available on public use data tapes. Data from the survey is published in Current Population Reports, Series P-70, from the Census Bureau. Published reports on the supplementary questions from the topical module on health and disability are being planned for late 1986.

A new research center at the University of Wisconsin is available to provide users with an online SIPP data base and an information network on the data and their uses.

CONTACT

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TOPIC AREAS

1. **Demographics**
(in core survey)

   A. Age

   B. Sex

   C. Race (White, Black, Other--American Indian, Asian/Pacific Islander, and any other race)

   D. Ethnic origin and Spanish origin (Mexican, Puerto Rican, Cuban, Central or South American or other Spanish origin)

   E. Marital Status

   F. Geographic area (region)

   G. Number of children in household and in family and family size

   H. Employment status (13 categories)

   I. Occupation

   J. Income (for persons 15 and over) from a job or assets

   K. Public assistance status (includes receipt of Supplemental Security Income, state unemployment compensation, state temporary sickness or disability benefits, AFDC, General Assistance, General Relief, WIC, food stamps-- 39 income sources were identified)

   L. Educational level

2. **Risk Factors** NA

3. **Health Status** (in topical module)

   A. Prevalence of health condition (for persons 15 and over). Includes 12 condition categories: arthritis or rheumatism; back or spine problems, including chronic stiffness or deformity of the back or spine; blindness or vision problems; cancer; deafness or serious trouble hearing; diabetes; heart trouble; hernia or rupture; high blood pressure; kidney stones or chronic kidney trouble; lung or respiratory trouble; mental illness; mental retardation; missing legs, feet, arms, hands, or fingers; nervous or emotional problems, or alcohol or drug problems; paralysis of any kind; senility; stiffness or deformity of the foot, leg, arm, or hand; stomach trouble; stroke; thyroid trouble or goiter; tumor, cyst or growth; other.

B. Perceived health status defined as excellent, very good, good, fair or poor.

4. **Severity of Illness** (in topical module)

A. Limitation of activity (for persons 15 and over) includes how a person's ability to do certain activities is affected because of health condition. Defined as ability to lift and carry 10 pounds, walk a quarter of mile, walk up a flight of stairs without resting, difficulty getting around inside or outside house alone, need help of another person to get around inside or outside the house, difficulty getting into and out of bed, need help getting into or out of bed, need help doing light housework, preparing meals, and taking care of personal needs.

B. Work disability (for persons 15 and over) includes year when disability occurred; specific health condition responsible for work disability; cause of disability; if due to accident or injury and where this took place; limitation by kind or amount of work, and capacity to work only part-time, work occasionally, or irregularly.

C. Bed disability includes the number of nights spent in hospital and number of bed days (defined as in bed more than half the day).

D. School disability (for persons 5-18) includes limitation in ability to learn or do regular school work, or need to attend a special school because of long-lasting mental or emotional problem or because of physical condition which limits ability to walk, run or play.

5. **Health Services Utilization** (in topical module)

A. Hospitalization

i. Total number of nights person spent in the hospital during past 12 months
ii. Total number of hospital days in last four months

B. Physician or qualified assistant visits

i. Number of visits (including phone consultation) in the last 12 months

6. **Delivery System Characteristics** (in topical module)

A. Usual source/site of care (when sick or needs advice)

i. Private doctor's office

ii. VA or military hospital, or hospital out-patient clinic (not VA or military)
iii. Hospital emergency room
iv. Company or industry clinic
v. Health center (neighborhood health center or free or low cost clinic)
vi. Other

7. **Health Care Expenditures**

A. If insurance reimburses the complete cost of doctor visit (core survey)

B. If employer or union paid all or part of the cost of the plan (core survey)

8. **Source of Payment/Health Insurance Coverage** (in topical module)

A. Third party payer during past 4-month period

i. Blue Cross/Blue Shield
ii. Medicaid or other public assistance program (including coverage for individual and children under 18 and time period of coverage)
iii. Medicare
iv. CHAMPUS/CHAMP-VA
v. Other

B. Time period of health insurance coverage includes entire 4-month period, last month, 2 months ago, 3 months ago, 4 months ago. (Children in household also included.) (in core survey)

i. Month when last covered by health insurance (in topical module)

C. Coverage by health insurance in somebody else's name (in core survey)

D. Type of plan: individual or family plan (in core survey)

i. If family coverage includes all children

E. Reason stopped being covered by health insurance (in topical module)

i. Lost job or changed employers
ii. Spouse/parent lost job or changed employers
iii. Death of spouse or parent
iv. Divorced or separated
v. Ineligible because of age (i.e., no longer covered by parent's private plan or by Medicaid)
vi. Other

F. Reasons for lack of health insurance (in topical module)

i. Job lay off, job loss, or any reason related to unemployment
ii. Poor health, illness or age
iii. Too expensive, can't afford
iv. Dissatisfied with previous insurance
v. Don't believe in insurance
vi. Haven't needed health insurance because of good health
vii. Use VA or military hospital
viii. Covered by other health plan
ix. Other

G. Attempt to find other health insurance and reason for not finding (in topical module)

i. Could not afford
ii. Was rejected
iii. Other

9. **Other Special Features** (in topical module)

A. Use of helper to aid person with health condition to get around, do housework, and/or do meal preparation, look after personal needs and if family paid for help; relationship of helper to household, whether paid.

STRENGTHS FOR CHRONICALLY ILL CHILDREN
==========

A. The SIPP provides in-depth health insurance information and reasons for lack of coverage for the 15-21 population group as well as data on children under 18 who are enrolled in a family insurance plan.

B. SIPP provides data on the stability of private and public coverage and changes in coverage as a result of changes in employment and family composition. It also provides information on the uninsured population, including the numbers and characteristics of the part-year uninsured, full-year uninsured, and multi-year uninsured as well as multiple insurance coverage and the stability of coverage.

C. Several questions were asked on severity of illness for children between the ages 5 and 18, including both the health condition causing the disability and the extent of limitation of activity.

D. With the dramatic increase in information associated with the implementation of the SIPP, new opportunities are emerging to improve the accuracy of income and expenditures estimates. For example, new information on program participation will make possible the allocation of Medicare and Medicaid expenditures to individual households.[1]

WEAKNESSES FOR CHRONICALLY Ill CHILDREN

A. No information is available on risk factors and very little is collected on health services utilization and health care expenditures.

B. The sample size of children with activity limitations is relatively small.

C. The questions on limitation of activity for children 5 to 18 are not comparable to those asked in the National Health Interview Survey (NHIS), the National Medical Care Expenditure Survey (NMCES), and the National Medical Care Utilization and Expenditure Survey (NMCUES).

D. Health conditions are not indexed by ICD code, but by large condition groups. These condition groups are not comparable to those used by NHIS.

E. No question is asked on what health condition is responsible for the long-lasting mental or emotional problems which may limit a child's ability to learn or do regular school work.

F. Because SIPP collects detailed information every 4 months from panels of respondents who are followed for a total of 2 1/2 years, and because the design calls for panels which overlap in time, the resulting data will be extremely complex and difficult to manipulate.[2]

G. Data on specific health conditions are not available for children under 5.

AVAILABILITY OF PUBLISHED DATA

Preliminary plans have been made for a number of publications and public use computer data files that will be cross-sectional or longitudinal. The cross-sectional reports will include a set of quarterly or annual reports that will focus on core information and a set of periodic or single-time reports that will use the detailed sociodemographic data from the topical modules. Plans are currently being made for the longitudinal data reports.

PUBLICATIONS

A. Nelson, D, McMillen, D and Kasprzyk, D: An Overview of the Survey of Income and Program Participation. SIPP Working Paper. Series No. 8401, Update 1. Washington, D.C.: U.S. Bureau of the Census, 1985.

B. U.S. Bureau of the Census: Economic Characteristics of Households in the United States: Quarterly (starting with Fourth Quarter 1983). Current Population Reports. Series P-70. Washington, D.C.: U.S. Government Printing Office, 1985.

C. Journal of Economic and Social Measurement. Special Issue: Survey of Income and Program Participation. Vol 13, Nos. 3 and 4, 1985.

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[1] Directly quoted from Zill, Nicholas, Peterson, James, and Moore, Kristin: Improving National Statistics on Children, Youth, and Families. Washington, D.C.: Child Trends, Inc., 1984.

-- FOR SIPP SUMMARY, SEE PAGE 76 --

PART 4: APPENDIX

HOW TO USE MeSH KEY WORDS

MeSH is a computerized data base developed by the National Library of Medicine (NLM) to classify medical and health subjects for information retrieval. The Medical Subject Headings (MeSH) describing these surveys were selected from the most recent list of headings, the MeSH Annotated Alphabetic List, 1986.

The MeSH Index lists the MeSH key words in alphabetical order with the corresponding survey numbers that contain that information. The following index, "MeSH Index by Topic Areas" lists these same terms alphabetically by each of the topic areas with the corresponding survey numbers.

For almost all of the 17 national surveys, MeSH was appropriate to describe the survey content. However, a few of the surveys covered areas not included in MeSH, such as discharge status/patient disposition, reason for visit, and usual source of care. In addition, the MeSH terms selected were not always the most specific or appropriate to describe the survey content. For example, there were no MeSH terms for work disability, limitation of activity, school loss days or bed disability days. We, therefore, substituted the closest MeSH terms -- disability evaluation and activities of daily living for severity of illness measures. Likewise, since there was no heading for perceived health status, we used the term "attitude to health".

The MeSH Key Words and the Matrices should quickly guide the reader to the most appropriate national survey for information regarding maternal and child health and financing for chronically ill children.

MeSH INDEX

Mesh Key Words	Survey Numbers
Abnormalities (congenital)	3,5,9,15
Activities of daily living	4,5,7,9,10,12,13,14,17
Acute disease	5,8,9,10,11,13,14
Alcohol drinking	9,12,15,17
Ambulatory care (utilization)	5,8,9,10,12,13,14,17
Attitude to health*	9,10,12,13,14,17
Behavior disorders (child)	1,5,16
Birth injuries	3,5,9,12,15
Birth weight	3,5,9,12,15
Chronic disease	4,5,7,8,9,10,13,14,16,17
Contraception	12,15
Counseling	16
Delivery (e.g., c-section)	5,11,12,15
Dental care (utilization)	9,10,13,14
Deductibles and coinsurance	13,14
Development (child)	5
Diagnosis (classification)	1,2,3,5,7,8,9,10,11,12,13,14, 15,16,17
Diagnostic related groupings	11
Diagnostic tests, routine	8,9,12,13,14,15,16
Disability evaluation**	4,5,7,9,10,12,13,14,17
Drugs (prescription)	5,8,9,13,14
Drugs, nonprescription	5,8,9
Emergency service, hospital (utilization)	2,13,14
Environmental pollutants (exposure)	9,15
Equipment and supplies (utilization)	13,14
Expenditures, health	2,6,13,14,17
Family planning	12,15
Fees and charges	6,13,14
Fertility	2,12,15
Fetal death	2,5,12,15
Financing, government	2,6,9,10,11,13,14,16,17
Follow-up care	8,16
Gestational age	5,12,15
Health facilities (e.g., hospitals)	1,2,4,11,17
Health manpower	2
Health manpower (utilization)***	5,9,13,14
Health occupations	2
Health services accessibility	2,9,13,14

Hospitalization	1,2,3,4,5,9,10,11,12,13, 14,15,16,17
Immunizations	12
Infant mortality	2,12,15
Infant, premature	5,9,12,15
Insurance, health	6,9,10,11,12,13,14,16,17
Labor complications	5,12,15
Medical history taking	8,9
Medically underserved area	2
Mental disorders	1,4,9,16,17
Mental health services (utilization)	1,4,16
Morbidity	2
Mortality	2
Motor skills	5,7
Nursing homes (utilization)	2
Nutrition	5,9,12,15
Outpatient clinics (utilization)	2,12,13,14
Ownership (hospital)	4,10,11
Personality development	5,7
Physical examination	9
Physician (utilization)	2,8,9,10,12,13,14,17
Post-natal care	15
Post-operative care	8
Pregnancy	5,12,15
Pregnancy complications	5,12,15
Prenatal care	5,12,15
Preventive health services (utilization)	8,12,13,14
Professional practice (e.g., group practice)	2,8,13,14,17
Quality of life	7
Radiations (exposure)	12,15
Signs and symptoms	5,8,9,10,12,13,14
Smoking	5,9,12,15
Social adjustment	5,7
Specialities (e.g.,medical)	8,9,13,14
Sterilization, tubal	15
Substance use disorders	1,5,9,12,15,16,17
Surgery, operative	2,3,5,10,11,13,14

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* Attitude to health refers to self perception of health status.

** Disability evaluation incorporates work disability, limitation of activity, school loss days, and bed disability days.

***Health manpower (utilization) refers to use of medical personnel other than physicians (e.g., nurses, social workers).

MeSH INDEX BY TOPIC AREAS

MeSH Key Words	Survey Numbers
Risk Factors	
Alcohol drinking	9,12,15,17
Environmental pollutants (exposure)	9,15
Fertility	2,12,15
Nutrition	5,9,12,15
Quality of life	7
Radiations (exposure)	12,15
Smoking	5,9,12,15
Social Adjustment	5,7
Health Status	
Abnormalities (congenital)	3,5,9,15
Acute disease	5,8,9,10,11,13,14
Attitude to health	9,10,12,13,14,17
Behavior disorders (child)	1,5,16
Birth injuries	3,5,9,12,15
Birth weight	3,5,9,12,15
Chronic disease	4,5,7,8,9,10,13,14,16,17
Development (child)	5
Diagnosis (classification)	1,2,3,5,7,8,9,10,11,12,13 14,15,16,17
Diagnostic related groupings	11
Fetal death	2,5,12,15
Gestational age	5,12,15
Infant mortality	2,12,15
Infant premature	5,9,12,15
Labor complications	5,12,15
Mental disorders	1,4,9,16,17
Morbidity	2
Mortality	2
Motor Skills	5,7
Personality development	5,7
Pregnancy	5,12,15
Pregnancy complications	5,12,15
Signs and symptoms	5,8,9,10,12,13,14
Substance use disorders	1,5,9,12,15,16,17
Severity of Illness	
Activities of daily living	4,5,7,9,10,12,13,14,17
Disability evaluation	4,5,7,9,10,12,13,14,17

Health Services Utilization

Ambulatory care (utilization)	5,8,9,10,12,13,14,17
Contraception	12,15
Counseling	16
Delivery (e.g., c-section)	5,11,12,15
Dental care (utilization)	9,10,13,14
Diagnostic tests, routine	8,9,12,13,14,15,16
Drugs (prescription)	5,8,9,13,14
Drugs, nonprescription	5,8,9
Emergency service, hospital (utilization)	2,13,14
Equipment and supplies (utilization)	13,14
Family planning	12,15
Follow-up care	8,16
Health manpower (utilization)	5,9,13,14
Hospitalization	1,2,3,4,5,9,10,11,12, 13,14,15,16,17
Immunizations	12
Medical history taking	8,9
Mental health services (utilization)	1,4,16
Nursing home (utilization)	2
Outpatient clinics (utilization)	2,12,13,14
Physical examination	9
Physician (utilization)	2,8,9,10,12,13,14,17
Post-natal care	15
Post-operative care	8
Prenatal care	5,12,15
Preventive health services (utilization)	8,12,13,14
Sterilization, tubal	15
Surgery, operative	2,3,5,10,11,13,14

Delivery System Characteristics

Health facilities	1,2,4,11,17
Health manpower	2
Health occupations	2
Health services accessibility	2,9,13,14
Medically underserved area	2
Ownership (hospital)	4,10,11
Professional practice	2,8,13,14,17
Specialties (e.g., medical)	8,9,13,14

Health Care Expenditures

Deductibles and co-insurance	13,14
Expenditures, health	2,6,13,14,17
Fees and charges	6,13,14

Source of Payment/Health Insurance Coverage

Financing, government	2,6,9,10,11,13,14,16,17
Insurance, health	6,9,10,11,12,13,14,16,17

USING NATIONAL SURVEY DATA TO DEVELOP STATE ESTIMATES

Introduction

The three purposes of this section are:

1) to summarize which national surveys (of the 17 included in this Guide) collect state data,

2) to summarize and provide selected references on estimating statistics for small areas, emphasizing synthetic estimation techniques and

3) to provide an example of estimating state prevalence rates for hearing impairments among children, using the National Health Interview Survey.

Most of the national surveys that are included in this Guide are designed to produce estimates for the United States as a whole or, at best, for large geographical areas (e.g., regions or SMSAs). They are, for the most part, based on probability samples of the entire U.S. population, which differ from the population of a specific state or small area. For that reason, it is important to examine which national surveys have specific state information and which have the capacity to apply small area estimation techniques. In the absence of state-specific data or synthetic estimates, it is also possible, though not as reliable, to apply national survey data and make adjustments based on a particular state's socioeconomic data. This latter approach is described below with examples from the National Health Interview Survey and from a publication prepared by Region IV Network for Data Management and Utilization (RNDMU).

The first section summarizes those national surveys in the Guide with state data. For more information on each survey, refer to Part 2 of the Guide. The second section describes synthetic estimation techniques and selected references. The third section summarizes an example of obtaining quick but rough state estimates using national survey data and state-specific Vital Statistics and Census information. Also included is a description of the RNDMU Project report that contains incidence and prevalence data for handicapped children based on reported rates and applied to a state's population base.

1. National Surveys with State Data

Five surveys listed in the Guide collect state data. They are as follows:

- Annual Census of Additions and Resident Patients in State and County Mental Hospitals
- Area Resource File
- Birth Defects Monitoring System
- Census Of Persons in Institutions and Other Group Quarters
- National Natality Survey/National Fetal Mortality Survey

The type of state and small area information collected in each of these surveys depends greatly on the data collection methods and types of survey design.

1. The Annual Census of Additions and Resident Patients in State and County Mental Hospitals, (Annual #1), sponsored by the National Institute of Mental Health, is a count of patients residing in state and county mental hospitals. Aggregate patient counts are obtained directly from state mental health departments or specific hospitals. For some states, the data presented in this report may differ from the data given in official state publications due to differences in definitions used by state programs and those used by the National Institute of Mental Health. The most current year for which published data are available is 1982.

2. The Area Resource File (ARF #2), sponsored by the Health Resources and Services Administration, is a compilation of data drawn from over 75 primary data sources. These include county-based data on health professions, manpower, health services utilization, and delivery system characteristics. ARF is made up of four subsystems: the Basic ARF County File; with data on demographics, risk factors, health status, health services utilization, and delivery system characteristics; the State/National Time Series Database with health professions information; the ACCESS Subsystems with documentation and retrieval information; and Other System Components, including hospital data. The availability of state and county data from ARF depends on each primary data source. The most current year for which published data are available is 1985.

3. The Birth Defects Monitoring Program (BDMP #3), sponsored by the Centers for Disease Control, compiles hospital discharge data from the Commission on Professional and Hospital Activities (CPHA). Approximately 1,200 hospitals are included in this non-random sample of approximately 20% of all live births. With this CPHA data, the CDC monitors the incidence of birth defects, structural anomalies and other birth disorders. Computer monitoring for increases in the incidence of birth defects is performed for the entire United States, each

census region, individual counties, and hospitals. This information is provided to state health departments when an unusual increase in the incidence of birth defects is detected within a state. No public use data tapes are available except, at significant expense, through the Commission on Professional and Hospital Activities. The most current year for which CDC's data are available is 1985.

4. The Census of Persons in Institutions and Other Group Quarters (Census #4), sponsored by the Bureau of Census, provides state and county estimates on the number of children residing in various health-related institutions and group quarters from a sample of institutions and institutionalized persons from each state. The most current year for which published data are available is 1980. Data are provided by state, SMSA and county.

5. The National Natality Survey/National Fetal Mortality Survey (NNS/NFMS #15), sponsored by the National Center for Health Statistics, are nationally representative surveys based on samples of 9,941 live birth and 6,386 fetal death vital records which are weighted to reflect U.S. live birth and fetal deaths of 28 weeks or more gestation.

   The NNS/NFMS provides direct estimates by each state for a wide variety of maternal and child health data items including the number of live births and fetal deaths to married mothers and the percent with selected social, demographic, maternal health characteristics (e.g., cesarean delivery), infant characteristics (e.g., respiratory distress syndrome). Published reports with these many maternal and infant health characteristics by state are available free of charge and have already been sent to many state vital statistics offices. In addition, for small area estimates, i.e., those states with small sample sizes, and cities and counties where direct estimates are not available from the surveys, NCHS has developed synthetic estimation techniques that give NNS/NFMS estimates for selected states and counties (those with at least 50 births). To make a synthetic estimate a State would need to collect certain demographic variables, such as age, race, birth order (or other health/demographic factors used to standardize the estimate) from both the State and NNS Survey. Public use data tapes for the 1980 NNS/NFMS Survey are available. At least 20 state vital statistic registrar offices have already obtained these tapes. States can also use the NNS/NFMS in evaluating their state vital registration data. The vital statistic record is part of the NNS data file so that case-by-case comparisons of birth/death certificate information and responses to the NNS/NFMS questionnaires can be made.

   For 1988, the NNS staff are considering a series of state and county synthetic estimates in an automated system for states and counties with at least 50 births including 25 important characteristics.

2. Small Area Statistics from the National Center for Health Statistics

This section briefly describes synthetic estimation techniques along with selected references.

The National Center for Health Statistics (NCHS) has long recognized the need for reliable small area statistics and has developed a procedure known as synthetic estimation for obtaining small area statistics. Simply stated, if a national sample is to be used to make estimates for small areas and there are no sampling units in the small area of interest, then a conventional estimation method cannot be used and a synthetic approach is necessary. However, in some cases the sample size in a small area can be rather large. When the sample size of a small area approaches the size of the area's population, a conventional direct estimate becomes more desirable than a synthetic estimate. This is true whether or not the sample was designed to produce estimates for small areas.

The underlying rationale for synthetic estimation is that the distribution of health characteristics does not vary among populations of States except to the extent that States vary in demographic composition. This estimation method assumes that the incidence or prevalence of a health characteristic would be the same for two states if their composition were the same with respect to such demographic variables as age, sex, race, family, income, family size, place of residence, and industry of the head of the family. The following model is used to make a synthetic estimate:

$$\tilde{\bar{X}} = \sum_{\alpha=1}^{k} P_{s\alpha}\bar{X}_{\alpha}$$

where

$\tilde{\bar{X}}_s$ = mean level of characteristic X for the sth State,

$P_{s\alpha}$ = proportion of the population who are members of population cell α (alpha), which is the socioeconomic demographically bounded class of specified age, sex, race, income, etc. The sum over all α cells of $P_{s\alpha}$ = unity.

$\bar{X}_{\alpha}$ = mean level of characteristic X for persons in cell α in the United States as a whole, and

k = number of α cells utilized.

The example listed below and the RNDMU Project description illustrate how simply synthetic estimates can be performed. For additional information the National Center for Health Statistics has a technical assistance office to provide states information on computing synthetic estimates. There are also selected publications from NCHS on small area statistical methods listed below. Reference 1 listed below is most pertinent to readers because it

not only describes how to do synthetic estimates but also includes short articles on performing state estimates using various national data bases.

NCHS Contact on Synthetic Estimates:

Doug Williams, Chief
Data Application and Research Staff
Office of Interview and Examination Program
National Center for Health Statistics
3700 East-West Highway
Hyattsville, MD 20782
301-436-7049

Selected References on Small Area Statistics:

1. Invited Papers to the Data Use Conference on Small Area Statistics. Conference sponsored by the National Center for Health Statistics, Snowbird, Utah: August 29-31, 1984.

2. National Center for Health Statistics: Synthetic Estimation of State Health Characteristics Based on the Health Interview Survey. Vital and Health Statistics: Series 2, Data Evaluation and Methods Research. No. 75, (DHHS)(PHS) 78-1349.

3. National Center for Health Statistics: Small Area Estimation: An Empirical Comparison of Conventional and Synthetic Estimators for States. Vital and Health Statistics: Series 2. Data Evaluation and Methods Research. No. 82. (DHHS)(PHS) 80-1356.

4. Heuser, Keppel, Witt, and Placek: Synthetic Estimation Applications from the 1980 National Natality Survey (NNS) and the 1980 National Fetal Mortality Survey (NFMS). Presented at the Annual Meeting of the Association for Vital Records and Health Statistics, July 1984.

5. Brockert, Peterson, Nangle: Estimates for Utah from the 1980 National Natality Survey. Presented at the Annual Meeting of the American Statistical Association, Las Vegas, August 1985.

6. Moss and Trevino: Using the National Health Interview Survey to Produce Health Statistics for Small Geographic Areas and Population Subdomains - A Look at Selected Health Indicators for Mexican American, Cuban American, Puerto Rican and "Other Hispanic" Americans, in Invited Papers (see #1), p.13.

7. Synthetic State Estimates of Disability Derived from the National Health Survey. Washington, D.C.: Department of Health, Education and Welfare, PHS Pub. No. 1759.

3. Example of Estimating Chronic Condition Prevalence Rates Using Data from the National Health Interview Survey and the RNDMU Project

The following section summarizes a less sophisticated approach to obtaining state estimates for hearing impairment prevalence rates, using the National Health Interview Survey (NHIS). Although this example is based on using the NHIS, the same general approach can be applied using any of the national surveys. The NHIS provides prevalence data on selected chronic conditions and impairments and incidence data on acute conditions. (Note: data for several years can be aggregated to increase the population base to look at specific conditions). To obtain a state estimate, NHIS' Current Estimates publications are needed in addition to selected socioeconomic data typically available through each state's Census and Vital Statistics offices.

Similar calculations could be done for other measurements of health status, health services utilization, expenditures, and insurance coverage using the NHIS and other surveys. However, reliability varies greatly with each survey design. Whenever possible, synthetic estimation techniques are recommended. For more information on using synthetic estimates for the NHIS, see the two selected references above: #2 from the National Center for Health Statistics and #6 by Moss and Trevino.

Example: Estimating prevalence rates for hearing impairments among children 0-17.

1. Obtain the prevalence rate for hearing impairments from the most Current Estimates publication of the NHIS. Note the population base of the prevalence rate (e.g., prevalence rate for hearing impairments per 1,000 noninstitutionalized children 0-17).

   -- In 1980, it was 17.9 per 1,000 persons.

2. Obtain from your vital statistics office the number of noninstitutionalized children, ages 0-17. Depending upon your data needs and the availability of NHIS data, more detailed information by specific demographic variables can be obtained. Note: Age-specific prevalence rates are often limited to broad categories in published NHIS reports. For hearing impairments, the age breakdown is for children ages 0-17. If the condition examined is relatively prevalent, there is a greater likelihood that small age breakdowns are possible. For less prevalent conditions, you may want to aggregate several years of data. Contact the NCHS office below for more information on availability of multi-year data.

   -- 554,550 children in hypothetical state

---------- **Method Used** ----------

Prevalence rate per 1,000 x Number of persons in the population at a specific time

= Number of cases of disease (impairment) present in the population at a specified time

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19.7/1,000 X 554,550 = 10,924 noninstitutionalized children in "X" state have hearing impairments

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For information on unpublished socioeconomic and demographic breakdowns from the NHIS survey, contact:

Health Interview Statistics
Illness and Disability Statistical Branch
National Center for Health Statistics
5300 East-West Highway
Hyattsville, MD 20850

RNDMU Project

The Region IV Network for Data Management and Utilization (RNDMU), a SPRANS project coordinated by the University of North Carolina, Department of Maternal and Child Health, the Maternal and Child Health (MCH) and Crippled Children's (CC) program directors in the eight states in Region IV and the DHHS Regional Office in Atlanta, prepared the following report on making state estimates for chronic conditions. For information, call 919-966-2017.

The Incidence and Prevalence of Handicapping Conditions in Children: A Compendium of Rates and State-Specific Estimates for DHHS Region IV, (3/85). The compendium was developed in response to the need for incidence and prevalence data of handicapping conditions among children by state. It assists states in estimating need and unmet need and in assessing the appropriateness of service distribution and the need for new services.

The information on incidence and prevalence rates for selected handicapped conditions includes the name of the condition and ICD-9 code, the population base from which the rate was derived, and the source of the rate (specific studies, National Health Interview Survey, National Health and Nutrition Examination Survey, Birth Defects Monitoring Project). Estimates of incidence and prevalence are derived from these rates and applied to specific population data per state.

SELECTED REFERENCES ON FINANCING OF CARE FOR CHRONICALLY ILL CHILDREN

1. Benson P, Gabriel A, Katz H, Steinwachs D, Hankin J, Starfield B: Preventive care and overall use of services. American Journal of Disabled Children. Vol. 138, Jan. 1984.

2. Berk, M, Cafferata G, Hagan M: Persons with limitations of activity: health insurance, expenditures and use of services. Data Preview 19. NCHSR National Health Care Expenditures Study, DHHS Pub. No. (PHS) 84-3363, October 1984.

3. Butler J, McManus M, Newacheck P: Issues in the financing of care for chronically ill children and their families. Topics in Early Childhood Special Education. 5:4, Winter 1986.

4. Butler J, Winter W, Singer J, Wenger M: Medical care use and expenditure among children and youth in the United States: analysis of a national probability sample. Pediatrics. Vol. 76, No. 4, Oct. 1985.

5. Congressional Research Service and Congressional Budget Office: Children in Poverty. Washington: GPO, May 22, 1985.

6. Fox H: A preliminary analysis of options to improve health insurance coverage for chronically ill and disabled children. Prepared for DHHS' Division of Maternal and Child Health, September 1984.

7. Fox H: Memoranda prepared for DHHS' Division of Maternal and Child Health and disseminated to State Maternal and Child Health and Crippled Children's Service Program Directors:

   RE: Medicaid options for financing the health care of handicapped and chronically ill children (includes options for expanding eligibility and service coverage without a waiver through targeted medically needy programs and EPSDT; home and community-based waivers and model and individual waiver options; and freedom of choice waivers). March 20, 1984.
   RE: Expansions in mandatory Medicaid eligibility for children and pregnant women. December 13, 1984.
   RE: Medicaid options for financing the care of children and pregnant women. February 22, 1985.
   RE: Documentation of cost effectiveness under the 2176 waiver program for home- and community-based services. April 5, 1985.
   RE: Medicaid deeming and minimum filing unit requirements. May 29, 1985.
   RE: Uncompensated hospital care. July 25, 1985.
   RE: The medically needy option for expanding Medicaid eligibility. December 6, 1985.

8. Hobbs N, Perrin J (eds): Issues in the Care of Children with Chronic Illness. San Francisco: Jossey-Bass Publishers, 1985. Relevant chapters and authors:

   40. Health care expenditures for children with chronic illness (Butler, Budetti, McManus, Stenmark, Newacheck)
   41. Parental opportunity costs and other economic costs of children's disability conditions (Salkever)
   42. Private health insurance and chronically ill children (Weeks).

9. Hobbs N, Perrin J, Ireys H: Chronically Ill Children and Their Families. San Francisco: Jossey-Bass Publishers, 1985.

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AN ANNOTATED REFERENCE GUIDE TO RELATED HEALTH DATA INVENTORIES

Introduction

In the past five years, an increasing number of health data inventories have become available. Since this SPRANS Project was also funded to prepare an inventory, we reviewed the "state of the art" in health inventories. There is no question that a growing arsenal of very useful general health data inventories is available. We were fortunate enough to be able to build upon this thoughtful work.

It is our intent in this brief summary to describe related health inventories, what they contain, and how to order them. The inventories we chose to include in this annotated reference guide were selected for their relevance to financing for chronically ill children. For example, one inventory summarizes data sources on the functionally ill elderly. We include this for its summary of functional limitation data available in selected national surveys.

Each inventory is quite different. Some include just the scope and purpose of each survey, survey design, frequency, and availability of data. Others summarize in a common format the demographic data collected in each survey. Still others actually include some secondary analysis of selected surveys.

With this annotated health inventory guide readers will find many useful references to improve their data collection capabilities related to financing of care for chronically ill children.

1. **DATA COVERAGE OF THE FUNCTIONALLY LIMITED ELDERLY: REPORT OF THE INTERAGENCY STATISTICAL COMMITTEE ON LONG-TERM CARE FOR THE ELDERLY.** Washington, D.C.: Office of Federal Statistical Policy and Standards, Commerce Department and Office of Management and Budget, 1980. (To order:, NTIS, Springfield, VA 22161; 703/487-4650; PB80-2558; $10.00)

Largely based on the Inventory (see 9 listed below), this report contains committee findings assessing the adequacy of the data in relation to major LTC issues. Recommendations are detailed in the following areas: improving access to data, analyzing available data, eliminating major gaps in coverage common to national surveys, collecting a standard set of data items, and "piggybacking" in gathering further data. (The compendium report is 7.)

2. **DIGEST OF DATA ON PERSONS WITH DISABILITIES.** Washington, D.C.: The National Institute of Handicapped Research, Office of Special Education and Rehabilitative Services, U.S. Dept. of Education, June, 1984. (To order: National Technical Information Service, Springfield, VA 22161; 703/487-4650; PBAOACF011618/LA; $14.50)

This is a compilation in table and chart form of statistical data (1957-1982), primarily from the National Health Interview Survey, on persons with disabilities. It focuses on 1) the prevalence of disabilities in terms of impairments and chronic conditions, activity limitations and severity of limitations; 2) the characteristics of the disabled population in terms of living arrangements, employment, income, and health care utilization; and 3) data from federal programs, including special education and other disability programs as well as state level data (e.g., SSI). Explanatory notes accompany each table. The appendices to this 177-page document present the source references, primary data sources used, data needs, and an index matrix to guide the reader as well as a selected list of information resources.

3. **A GUIDE TO HEALTH DATA RESOURCES.** Millwood, VA: Center for Health Affairs, Project HOPE, 1985. (To order: Center For Health Affairs, Project HOPE, Millwood, VA 22646; 703/837-2100; $24.95)

This is a detailed 92-page annotated bibliography of publications since 1976 containing health care data and their sources. It is organized into sections on general references, health characteristics of selected population groups, health status and determinants, health facilities, health care personnel, pharmaceuticals and health care products industry, and health programs and expenditures. For each publication, a general description, pages and figures, data sources, data period, frequency of publication, availability, price, and a very useful abridged table of contents are listed.

4. **HEALTH DATA INVENTORY FISCAL YEAR 1983-1984: U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES.** Washington, D.C.: DHHS Health Information Policy Council, January 1984. (To order: National Technical Information Service, Springfield, VA 22161; 703/487-4650; PB84-196922; $22.00)

This reference document summarizes ongoing and planned health data projects and systems within DHHS. The 243-page inventory briefly describes each data project, its purpose, status and availability, and notes a contact person. It is arranged according to the organizational units of DHHS: the Health Care Financing Administration, the Public Health Service, the Office of Human Development Services, and the Office of the Secretary. Some 412 DHHS data projects were selected and analyzed according to their primary purpose (statistics, regulatory/compliance, manage-

ment, research and evaluation), the status of data collection and analysis (planned, ongoing, completed), and the frequency of data collection (single time, periodic, continuous). An extensive subject index is also included.

5. **IMPROVING NATIONAL STATISTICS ON CHILDREN, YOUTH, AND FAMILIES: A REPORT ON RECOMMENDATIONS MADE AT THE INTERAGENCY CONFERENCE ON CHILD AND FAMILY STATISTICS.** Washington, D.C.: Child Trends, Inc., 1984. (To order: Child Trends, Inc., 1990 M St., N.W., Washington, D.C. 20036; $12)

Included in this 98-page summary are specific recommendations for a continuing coordination effort, modifications to existing data programs, new data collection programs, and maintenance of basic statistical series on children and families. Detailed recommendations dealing with individual data sets address: health status, nutrition, and use of preventive services in infancy and early childhood; family income, non-cash benefits, and expenditures for children; family structure, parental employment and child care; families, schools, and educational outcomes, health-related behaviors in middle childhood and adolescence; children as victims and offenders; and special populations of children (including chronically ill children). (The compendium report is #12 listed below.)

6. **AN INVENTORY OF ALCOHOL, DRUG, AND MENTAL HEALTH DATA AVAILABLE FROM THE NATIONAL CENTER FOR HEALTH STATISTICS.** Washington, D.C.: Public Health Service, April, 1985. (To order: Superintendent of Documents, U.S. Government Printing Office, Washington, D.C., 20402; 202/783-3238; No.(PHS) 85-1319.)

This 84-page report summarizes NCHS data sets with information on clinical mental disorders, psychological well-being, psychosocial risk factors, alcohol use and abuse, and drug use and abuse, and provides a detailed summary of these data elements. The data sets reviewed are divided into general population surveys, health care statistics, vital statistics surveys, and vital statistics. For each data set, information is collected on the survey design, basic data elements, alcohol, drug abuse and mental health elements, data tape availability and questionnaire source items. Also included in the appendix are the following tables: a summary of alcohol, drug and mental health measures, classification variables, NHANES alcohol consumption questions and NHIS 1983 alcohol consumption questions.

7. **INVENTORY OF DATA SOURCES ON THE FUNCTIONALLY LIMITED ELDERLY: A COMPENDIUM OF THE CONTENT AND COVERAGE OF DATA SOURCES ON LONG-TERM CARE FOR THE ELDERLY.** Washington, D.C.: Interagency Statistical Committee on Long-Term Care for the Elderly, Office of Federal Statistical Policy and Standards, Commerce Dept. and Office of Management and Budget, 1980. (To

order: NTIS, Springfield, VA 22161; 703/4877-4650; PB80-212434; $23.50)

This inventory names 103 existing and planned person-based data sources on long term care (LTC) for the functionally limited elderly. Each source listing includes the project chief, sponsor, contact person, and a description of its purpose and sampling frame. In addition, the following detailed information is collected on each data source: policy areas, functional limitations, types of LTC assistance, aspects of LTC assistance, outcomes, and other data areas. (The compendium report is 1.)

8. **INVENTORY OF NATIONAL DATA FILES ON HANDICAPPED CHILDREN AND YOUTH.** Boston, MA.: Human Services Research Institute, April, 1985. (Will be available early 1986. To order: National Institute for Handicapped Research, U.S. Dept. of Education, Mailstop 2305, Washington, D.C. 20202. Attn: Inez Fitzgerald, 202/732-1202. No charge for publication.)

This 152-page document profiles 25 surveys containing national statistical information on childhood physical, mental, and emotional impairments that have impeded life functions for periods of time since January, 1978. The Inventory is designed to serve as a reference tool for the National Institute for Handicapped Research and others interested in such information. Included for each source are contacts, sponsor, survey period, objectives, population, sample size and design, data source, estimation scheme, response rate, treatment of missing values, sampling error, age, ethnicity/race, family income, rural/urban residence, disabling condition/functional limitation, other health related data, family composition, beneficiary status for major federal programs, service utilization, data tape availability, tape characteristics, technical documentation, and survey evaluation.

9. **AN INVENTORY OF U.S. HEALTH CARE DATA BASES.** New York, N.Y.: American Hospital Association, 1983. (To order: Elsevier Science Publishing Co., Inc., 52 Vanderbilt Ave., New York, N.Y. 10017; 212/867-9040; $24.00)

The 144 U.S. health care data bases (1976-1982) outlined in this inventory contain information that has been collected by 43 public and private sector organizations and is available to researchers outside the sponsoring agency. The inventory includes the base title, sponsor, purpose and scope, sampling procedures, frequency, availability (including years for which tapes are available), cost, contact, and related publications. Medical Subject Headings (MeSH) are given for each data base and included in the index. The inventory, prefaced by an article entitled "Health Care Data in the United States" by Dorothy Rice, is included in the journal REVIEW OF PUBLIC DATA USE (Vol.11, No.2, June 1983).

10. **INVENTORY OF U.S. HEALTH CARE DATA BASES, 1976-1983.** Chicago, Illinois: American Hospital Association, 1984. (To order: Mr. Howard Stambler, DHHS, Bureau of Health Professions, Parklawn Bldg., Rm. 841, 5600 Fishers Lane, Rockville, MD 20857; 301/443-6936)

This inventory is an expansion of #9 above. For each of the 257 public and private data entries summarized, the following information is abstracted: title, sponsor, purpose and scope, subject headings, input source, universe, sample, frequency, years for which tapes are available, availability (free, purchase, lease, licensure), cost, contact, corresponding or related publications, other information. Two useful indeces are also included -- the sponsor and data base title index and the subject heading index (based on MeSH). The authors also include an introduction that addresses the problems of access to health care data bases and a selected bibliography.

11. **MATERNAL AND CHILD HEALTH AND CRIPPLED CHILDREN SERVICES: INVENTORY OF DATA SOURCES.** Washington, D.C.: DHHS Division of Maternal and Child Health. (To order: National Center for Education in Maternal and Child Health, Suite 1, 3520 Prospect St., N.W., Washington, D.C. 20057; 202/625-8410; free)

This is a 141-page sourcebook describing 61 state and national public and private data bases (current to March, 1984) on maternal and child health. Included for each source are data type, client descriptors, geographic division, periodicity, collection methodology and reporting, funding source, availability, publications, synopsis, and comments. Matrices were prepared on health status, utilization, and resource data.

12. **NATIONAL STATISTICS ON CHILDREN, YOUTH, AND THEIR FAMILIES: A GUIDE TO FEDERAL DATA PROGRAMS.** Washington, D.C.: Child Trends, Inc., 1984. (To order: Child Trends, Inc., 1990 M Street, NW, Washington, D.C. 20036; 202/223-6288; $12.00)

This 163-page report was prepared for the Interagency Conference on Child and Family Statistics held in April, 1984. Some 42 national surveys were selected and reviewed in terms of their scope and relevance for children, youth and families. These surveys are organized into several sections: population, family structure, child care; health and nutrition; education, social behavior and attitudes, substance use; and crime, delinquency, and child abuse. For each entry information is collected on title, purpose, sponsorship, design, periodicity, content, limitations, availability, and child and family descriptors. (The compendium report is #5 listed above.)

13. **THE SCHOOL-AGE HANDICAPPED; A STATISTICAL PROFILE OF SPECIAL EDUCATION STUDENTS IN ELEMENTARY AND SECONDARY SCHOOLS IN THE UNITED STATES.** Washington, D.C.: Child Trends, Inc., January 1985. (To order: U.S. Government Printing Office, Washington, D.C. 20402, NCES 85-400.)

This 75-page National Center for Education Statistics contract report summarizes data on handicapped students from state and federal statistics and child-based surveys. A brief summary of major findings highlights the size and composition of the special education student population and teaching force, integration of handicapped pupils into regular schools and classrooms, accessibility of schools to physically handicapped students, federal funding of special education, sex and race differences in special education placements, and findings from child-based surveys.

14. **DEMYSTIFYING DATA: DATA USE IN STATE AND LOCAL PUBLIC HEALTH NUTRITION PROGRAMS.** Proceedings, Conference of State and Territorial Public Health Nutrition Directors and Faculties of Graduate Programs in Public Health Nutrition, May 21-24, 1985, Chapel Hill, N.C.

This 245-page conference proceedings will serve as a useful reference regarding data management appropriate for public health nutrition programs. Included papers on the following subjects: identifying and describing national data resources and limitations in public health nutrition program development, (especially as related to achievement of the 1990 Health Promotion/Disease Prevention Objectives for the Nation), accessing and utilization of available national, state and local data sources for program management, identifying available potential resources for funding services, and enhancement of public health nutrition program development by networking with colleagues at the local, state and regional level.

ELECTRONIC VERSION OF GUIDE AVAILABLE

The Guide to National Data on Maternal and Child Health with Special Emphasis on Financing Services for Chronically Ill Children is now available in an electronic version accessible through the Shared Communication and Assistance Network (SCAN). SCAN is an electronic information service with the following services: electronic mail, bulletin boards and data bases which are available through any standard telecommunications equipment with a modem or terminal.

SCAN was developed by the American Association of University Affiliated Programs for Persons with Developmental Disabilities (AAUAP), in cooperation with the Surgeon General's Office; the Administration on Developmental Disabilities within the Office of Human Development Services; the National Institute of Handicapped Research with the Office of Special Education and Rehabilitation Services; and the Division of Maternal and Child Health with the Bureau of Health Care Delivery and Assistance.

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GUIDE TO NATIONAL DATA ON MATERNAL AND CHILD HEALTH
With Special Emphasis on Financing Services for Chronically Ill Children

The Guide to National Data on Maternal and Child Health is a detailed inventory of 17 national surveys. It will help readers identify the most appropriate national survey(s) for information on maternal and child health and chronically ill children. For example, this Guide will assist in answering a range of health and financing-related questions, such as:

° What are the prevalence rates of children with chronic illness?
° What proportion of children's medical bills are covered by third-party payers?

Each of the 17 national surveys is described in terms of the data it collects on demographics, risk factors, health status, severity of illness, utilization of health services, delivery system characteristics, health care expenditures, source of payment/health insurance coverage, and other related areas.

This Guide is unique in the range of national surveys represented, from very well-known surveys of the National Center for Health Statistics to surveys that have seldom been used in the maternal and child health field. Unlike other health inventories, it includes references to selected tables and reports, an extensive technical assistance appendix, and specific information on chronically ill children.

This Guide is also well-organized for easy identification of national surveys to access a range of maternal and child health data. There are four main parts to the Guide: Part 1 includes background information on the use of the Guide. Part 2 contains study findings on the strengths and weaknesses of national data for chronically ill children as well as general and survey-specific recommendations for improving financing data. Part 3 contains the actual inventory with matrices, summaries of each survey, and complete descriptions of each survey. Part 4 is the appendix including a financing bibliography, a section on how to use national survey data to make state estimates, a MeSH key word index, and a reference guide to other related health inventories.

This Guide will be a valuable reference tool for administrators, health policy analysts, pediatric providers, researchers, insurers, and educators. It allows quick and easy retrieval of the most useful national data sources for maternal and child health with special emphasis on health care financing for chronically ill children.